TCS-001

Ops and Tactics: Modern Combat Manual

Core Rulebook

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Centurion City Government

Centurion City Armed Forces, Dept. of Strategy and Tactics

Dedications

To Mom: Thanks for giving me encouragement in whatever I wanted to do.

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And finally to all those that read and enjoy this, and may your games be fun, adventurous, and enjoyable.

Written and designed by **Sweet Soul Bro** !!H5XdMKmBv5G

Credits

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Chapter 1

The Basics

What is Ops and Tactics?

Ops and Tactics is a tabletop roleplaying game focused around believable combat encounters, with an emphasis on modern weapons and equipment. Combat is in-depth and allows for more fluid sequences of actions based around a system where players spend chunks of time every round to build their turns out of individual actions, packing each round with more choices and activity. Taking inspirations from video games such as classic XCOM, Metal Gear Solid, and Jagged Alliance, and films such as John Wick, Heat and The Town, each round is also more dangerous and as a result a single bullet in the right place can end a fight as soon as it starts. A very extensive equipment and firearm list, with gun capabilities modeled after their real-world abilities lets you stat up and run just about any combatant you can think of. Batons, tasers, anachronistic melee weapons like swords and flamethrowers, and hundreds of guns ranging from the wild west to the standard-issue of today and more make it possible, and spoil you for choice. If that's not enough, the crafting rules allow for an industrious character to fabricate entirely new firearms from scratch, from simple zipguns to elaborate custom race guns, and even make their own customized ammunition to go along with their fabricated firearms. Ops and Tactics is focused on modern combat, and is suited for running games set in a world similar to our own with an emphasis on combat and action.

Basic Task Resolution System

These rules assume a standardized system for determining the success or failure of any given task. That system is

`3d6+Modifiers vs. Target Number`

The Modifiers and TN are determined by the type of task. If the result equals or exceeds the TN, the test is successful. Any other result is a failure. A "natural 18" or "natural 3" on the roll is not an automatic success or failure unless the rules state otherwise.

Rounding Fractions

If you end up with a fractional amount, round down unless stated otherwise. Certain rolls have a minimum of 1. Negative numbers round toward 0, when they are rounded down.

Multiplying

Sometimes a special rule will make you multiply a number or a die roll. As long as you're applying a single multiplier, multiply the number normally. When two or more multipliers apply, multiply the number sequentially into a single multiplier.

Damage and Saving Throws

Unless otherwise noted, damage and conditional status effects can not be avoided with a Saving Throw.

Time, Fatigued and Exhaustion

When crafting, resting, or applying modifications or upgrades to items and weapons, times may be listed by days. A day is assumed to be 8 hours of continuous work, with minor concessions for breaks. Any multiple of those days, such as a week, is assumed to be multiple 8 hour work days. If a character works on a project, such as improving their ability scores, crafting, or scrbing spells, for 8 hours they become fatigued. If they work on a project for 12 hours or more, they become exhausted.

Ability Scores

The ability scores are the six scores that are the core of your character. They affect everything else about your character.

Ability Modifiers

Each ability has a modifier, which is calculated using this formula `(Ability ÷ 2) - 5, rounded down`

This is the number you add or subtract from a die roll when your character tries to do something related to that ability.

Score	Mod	Score	Mod	Score	Mod
3	–4	8-9	–1	14-15	+2
4-5	–3	10-11	+0	16-17	+3
6-7	–2	12-13	+1	18	+4

Table 1: Ability Modifiers

Ability Focus

When a character assigns ability scores and determines their ability modifiers, they then assign the ability modifier for Strength into Focus & Power and Dexterity into Marksmanship & Agility, equal to the total ability modifier for that ability.

> Example: *A modifier of +2 could be divided into +2/+0, +1/+1, or +0/+2*

Strength (STR)

Strength measures your character's muscle and physical power. Strength also limits the amount of equipment your character can carry and determines the Recoil Modifier for the character. Strength is split into two aspects,

- Focus (FOC), which represents a character's hand-eye coordination with a melee weapon.
- Power (POW), which is the actual strength of the character.

You use your character's STR score to determine

- Recoil Reduction (`STR SCORE - 10`)
- Carrying Capacity (`STR SCORE * 4 lbs`)

You apply your character's STR modifier to

- The skill that has STR as its key ability: Athletics.
- Strength checks (for breaking down doors and the like).

You apply your character's FOC modifier to

- Melee attack rolls.

You apply your character's POW modifier to

- Damage rolls when using a melee weapon or a thrown weapon.

Dexterity (DEX)

Dexterity measures hand-eye coordination, agility, reflexes, and balance. Dexterity is split into two aspects,

- Marksmanship (MRK), which represents a character's hand-eye coordination with a ranged weapon.
- Agility (AGI), which represents the character's overall ability to move, dodge and avoid attacks and other hazards

You apply your character's Dexterity modifier to

- The skills that have DEX as their key ability: Acrobatics, Drive, Pilot, and Ride.

You apply your character's MRK modifier to

- Ranged attack rolls.

You apply your character's AGI modifier to

- Defense Score.
- Reflex Saving Throws.
- Initiative Score.

Constitution (CON)

Constitution represents your character's health and stamina. A character's Core HP and Extended HP are determined by their Constitution score and modifier respectively. If either value changes, the Core HP or Extended HP are increased or decreased accordingly. You apply your character's Constitution modifier to

- Determining Core HP and Extended HP.
- Fortitude Saving Throws

Intelligence (INT)

Intelligence represents how well your character learns and reasons. Intelligence is important for any character who wants to have a wide assortment of skills. You apply your character's Intelligence modifier to

- The number of skill points a character gets at first level and each level thereafter.
- The skills that have INT as their key ability: Craft, Demolitions, Disable Device, Knowledge, and Technology Use.

Wisdom (WIS)

Wisdom represents a character's willpower, common sense, perception, and intuition. While INT represents one's ability to analyze information, WIS represents being in tune with and aware of one's surroundings. If you want your character to have acute senses, put a high score in WIS. You apply your character's WIS modifier to

- Will Saving Throws
- The skills that have WIS as their key ability: Perception and Treat Injury.

Charisma (CHA)

Charisma represents a character's force of personality, persuasiveness, personal magnetism, ability to lead, and physical attractiveness. This ability represents actual strength of personality, not merely how one is perceived by others in a social setting. You apply your character's Charisma modifier to

- The skills that have CHA as their key ability: Animal Handling, Perform, Presence, and Speechcraft.
- Starting and Bi-weekly wealth

Creating Ability Scores

3d6 Simply roll 3d6 and take the sum of the rolls.

4d6 Roll 4d6, drop the lowest die, and then take the sum of the rolls.

Point Buy The GM assigns a set number of points that the characters may use to purchase each separate ability score. The average being 30 points. Each ability starts at 8 for free and then you must spend points to increase the ability score. No ability score may be increased above 18 using this method.

Score	Point Cost	Score	Point Cost
9	1	14	6
10	2	15	8
11	3	16	10
12	4	17	13
13	5	18	16

Table 2: Point Buy

Grid Draw a 3×3 grid. Label the columns as STR, DEX, CON, and the rows as INT, WIS, CHA. Use the 4d6 method, re-rolling any ones, to generate nine scores and fill in the grid. Then for each ability, choose one score from the corresponding row or column. Once you've picked a cell, you can't use it again.

Array The GM assigns a set array of 6 scores, and the players choose which score to assign to each attribute.

Improving Ability Scores

A character's ability scores can change in a multitude of ways, from poisons and diseases to training. A character may also improve their ability score by practicing the ability. In order for a character to improve an ability they must practice it for one week, plus one additional week per point that the score you are attempting to improve is above 10. A character can only increase one point at a time. After they have practiced the number of weeks they are required to study or practice for, their ability score goes up by one point. No ability score may be increased higher than 26 using this method. A character must maintain these upgrades with regular practice, by taking at least two hours out of each week to practice and keep their skills up.

> Example: *A character increasing a score from 12 to 13 will take 3 weeks. Two weeks because 12-10=2, and 1 week to increase by one.*

Common ways to practice to improve ability scores include

Strength

- Weight training
- Anaerobic gym exercise
- Melee weapon practice

Dexterity

- Yoga and stretching
- Gymnastics
- Marksmanship practice

Constitution

- Cardiovascular training
- Aerobic gym exercise

Intelligence

- Studying academic subjects
- Studying debates, logic, and reasoning

Wisdom

- Situational awareness training
- Meditation

Charisma

- Practice debating, arguing, and talking
- Practice persuading, intimidating, and beguiling

Chapter II

Characters

Creating and Leveling a Character

These are step by step instructions for rolling a character as well as increasing a character's level beyond level 1. When playing a game that starts at a level higher than level 1, it is highly recommended that you level the character a single level at a time, going through the normal leveling procedures for each level.

Cane Creating John Q.

This is a walk along, detailing how a player, Cane, is creating his character, John Q, a human man.

Step 1 (1st level only): Ability Scores

The first step is to acquire ability scores. This can be done in a manner of ways, depending on how your GM decides to give you scores. After acquiring your 6 ability scores, set your ability scores. When setting ability scores, be sure to set your Strength ability focuses; Power and Focus, and Dexterity ability focuses; Marksmanship and Agility. After these are filled out, calculate the Core HP of the character.

Ability Focuses

When a character assigns ability scores and determines their ability modifiers, they then assign the ability modifier for STR into FOC & POW and DEX into MRK & AGI, equal to the total ability modifier for that ability.

Example: *A modifier of +2 could be divided into +2/+0, +1/+1, or +0/+2. A modifier of -2 could be divided into -2/+0, -1/-1, or +0/-2*

Cane Creating John Q.

Cane is given an array for John Q, comprised of the following numbers: 16, 14, 12, 10, 10, and 8. He assigns them in the following configuration:

- **Strength:** 10, +0
  - **Focus:** +0
  - **Power:** +0
- **Dexterity:** 16, +3
  - **Marksmanship:** +2
  - **Agility:** +1
- **Constitution:** 12, +1
- **Intelligence:** 10, +0
- **Wisdom:** 8, -1
- **Charisma:** 10, +0

Step 2: Occupations

Occupations represent the current line of work that the character is in, at least before or at the beginning of the campaign. Occupations govern the starting wealth points, bi-weekly wealth points, and any additional skills or feats that are granted by that occupation. Occupations are listed in Chapter 3.
Occupations are not supposed to be a hard representation of actual job titles, rather a general field of study or group of jobs that the character is involved in. When creating a character, try to think of a specific job your character has, and try to place it in one of the categories that you, and the GM best feel would fit.

Occupational Skills

Many occupations grant skills. The number in parenthesis denote how many skills a character gets from their occupation. Occupational skills are selected before the primary selected skills, called focused skills. If they select a skill that they have already chosen as a occupational skill, they gain a +1. Every level, they gain a +1 in the occupational selected skills as well.

Occupational Feats

Select occupations grant feats. These feats are extra feats beyond what the character's race, and level grant. These feats are selected before the standard feats that a character gets.

Occupational Wealth and Equipment

All occupations give wealth, both starting and bi-weekly wealth. This wealth is meant to represent any assets and disposable income that the character has, after things like bills, payments, mortgages and taxes are paid.
Plenty of occupations also issue equipment as a part of their daily duties. Be sure to talk to your Game Master on any specific changes they may want to make involving issued equipment.

Cane Creating John Q.

Cane decides that his character, John Q, will be a bodyguard. He chooses the Security occupation, taking the **Knowledge (Tactics)** and the **Perception** skills as occupational skills.
He also takes the **Simple Weapon Specialist (Medium Club)** feat as an occupational feat.
Finally, he rolls his Starting Wealth Points, which is 2d4 multiplied by 10. He rolls well, rolling a 3 and a 4 on 2d4, gaining a total of 70 Wealth Points for his character.
Since his occupation has no notes for equipment, only his Game Master can give him any additional equipment, depending on the campaign. Because he has no bonuses or penalties to his Charisma score, nothing changes.

Step 3: Skills

The next step of the character is to select 7 skills from the list of skills available as focused skills. A focused skill is a skill that a character has focused in, and a character can spend skill points on these skills at the rate of 1 skill point per rank. A character can select any 7 skills, but they receive all of the Magic, Invoking, and Psionic Skills, Perception, Linguistics, Knowledge (Pop Culture)

and Knowledge (Streetwise) as focused skills. Any skill that is not selected or not a part of the skills that are automatically granted as focused skills are considered non-focused skills, and a character can spend skill points on those skills at the rate of 2 skill points per rank.
The Starting Skill Point formula is: `((3 + INT MODIFIER) X 5)`
The Leveling Skill Point formula is: `(3 + INT MODIFIER)`
The Maximum Skill Point ranks for focused skills is: `(Level + 4)`
The Maximum Skill Point ranks for unfocused skills is: `((Level + 4) ÷ 2)`

Cane Creating John Q.

Cane chooses the seven focused skills that John Q has. The focused skills he chooses, and the ranks he assigns them are below.

- **Athletics (Str):** Cane puts 5 ranks into John Q's Athletics skill. Because John Q's Strength bonus is +0, John has a total modifier of +5.
- **Disable Device (Dex)** Cane puts 5 ranks into John Q's Disable Device skill. Because John Q's Dexterity bonus is +3, John has a total modifier of +8.
- **Drive (Dex)** Cane puts 5 ranks into John Q's Drive skill. Because John Q's Dexterity bonus is +3, John has a total modifier of +8.
- **Knowledge (Survival) (Int)** Cane puts 2 ranks into John Q's Knowledge (Survival) skill. Because John Q's Intelligence bonus is +0, John has a total modifier of +2.
- **Knowledge (Tactics) (Int)** Cane puts 5 ranks into John Q's Knowledge (Tactics) skill. Because this skill is already an occupational skill, John Q receives an additional +1, and will receive a +1 every level. John Q's Intelligence bonus is +0, so John Q has a total modifier of +7.
- **Perception (Wis)** Cane puts 5 ranks into John Q's Perception skill. Because this skill is already an occupational skill, John Q receives an additional +1, and will receive a +1 every level. John Q's Wisdom bonus is -1, so John Q has a total modifier of +5.
- **Presence (Cha)** Cane puts 2 ranks into John Q's Presence skill. Because John Q's Charisma bonus is +0, John has a total modifier of +2.

Streetwise is a skill that is focused for all characters. John assigns ranks into these skills as well.

- **Knowledge (Streetwise) (Int)** Cane puts 1 ranks into John Q's Knowledge (Streetwise) skill. Because John Q's Intelligence bonus is +0, John has a total modifier of +1.

Step 4: Feats

A character gains 2 feats per level, plus any feats they receive per their race. Humans receive 1 additional feat at 1st level.

Cane Creating John Q.

Cane chooses two feats for John Q, as noted below.

- **Personal Firearms Proficiency:** The character can fire any personal firearm without penalty and may use the attack bonuses a firearm receives from upgrades. Characters without this feat take a –4 penalty on attack rolls made with personal firearms, and may not use attack bonuses given by firearm upgrades.
- **Shotgun Specialist:** When firing a shotgun the Combat Point cost is reduced by 1 and the character gains a +1 attack bonus to all attacks.

Because John Q is human, he receives an additional feat at 1st level. Cane chooses below:

- **Handgun Specialist:** When firing a holdout, backup, full-size, or target handgun or a machine pistol, the Combat Point cost is 1 less, and the character gains a +1 attack bonus to all attacks.

This is in addition to the feat that he received for choosing the Security occupation, listed below:

- **Simple Weapon Specialist (Medium Club):** When attacking with the chosen weapon the Combat Point cost to attack is reduced by 1.

Step 5: Character Statistics

After feats are selected, a character then fills out the rest of their values, such as Defense, Mental Limit, Combat Points, and attacks.

Base Attack Bonus (BAB)

Base attack bonus is the basic fighting ability of the character. It is a base bonus that applies to all attacks that the character makes. Base attack bonus starts at +1 at level 1, and increases by +1 every level.

Attack Bonuses

Attack bonuses fall into two categories: Ranged and Melee. Ranged attack bonuses are governed by the base attack bonus of the character, their Marksmanship modifier, and any miscellaneous bonuses. Melee attack bonuses are governed by the attack bonus of the character, their Focus modifier, and any miscellaneous bonuses.
The Starting Melee Attack formula is: `(FOC MODIFIER + BASE ATTACK BONUS + MISCELLANEOUS MODIFIERS)`
The Starting Ranged Attack formula is: `(MARK MODIFIER + BASE ATTACK BONUS + MISCELLANEOUS MODIFIERS)`

Combat Points (CP)

Combat Points are a representation of how many actions a character can perform in a single turn. In Ops and Tactics, every action in combat has a Combat Point value, and a character can perform as many actions, in any order, as they have Combat Points for. The value for Combat Points is effected by the character's race, so be sure to verify that you are using the correct calculation.
A character has 15 Combat Points, or the Racial Combat Point value.

Defense (DEF)

A character's Defense represents how hard it is for opponents to land a solid, damaging blow on the character. It is the attack roll result that an opponent needs to exceed to hit the character. A character's DEF is equal to: `10 + AGI Mod + Equipment bonus + Size Mod + Movement + Misc Mod`

Agility Modifier If a character's agility is high, they are particularly adept at dodging blows or gunfire. If a character's agility is low, they are particularly inept at it. Characters apply their AGI modifier to defense. Sometimes a character can't use their DEX bonus, this is what is what is called being "Flat-Footed".

Equipment Bonus Armor provides Damage Reduction to anyone who wears it, but a character who is proficient in the use of a certain type of armor receives the bonus to DEF. This bonus represents the armor's ability to protect the character from blows. Sometimes a character can't use their equipment bonus to Defense, this is what is called "Touch Defense". If an attack will damage the character just by touching them, that character can't add their equipment bonus.

Size Modifier The bigger an opponent is, the easier it is to hit in combat. The smaller it is, the harder it is to hit. Since this same modifier applies to attack rolls a creature doesn't have a hard time attacking another creature of the same size.

Movement Modifier When a combatant moves during combat, they become harder to hit. For every 5 feet beyond the first 20 feet a character moves they gain a +1 bonus to their DEF until their next turn, to a maximum of +10 DEF.

Miscellaneous Modifiers Other factors can add to a character's DEF, such as Feats, or dodge bonuses. Some feats give a bonus to a character's DEF. Some other DEF bonuses represent actively avoiding blows. These bonuses are called dodge bonuses. Any situation that denies a character their AGI modifier also denies their dodge bonuses.

Saving Throws

Saving Throws are used to avoid or prevent status changes or damage. Reflex is the measurement of moving and avoiding things, and is governed by the character's Agility modifier, and any miscellaneous modifiers. Fortitude is the measurement of physical resistance, and is governed by the character's Constitution modifier, and any miscellaneous modifiers.Will is the measurement of mental resistance, and Will is governed by the character's Wisdom modifier, and any miscellaneous modifiers.
The Starting Reflex Saving Throw formula is: `(AGI MODIFIER + MISCELLANEOUS MODIFIERS)`
The Starting Fortitude Saving Throw formula is: `(CON MODIFIER + MISCELLANEOUS MODIFIERS)`
The Starting Will Saving Throw formula is: `(WIS MODIFIER + MISCELLANEOUS MODIFIERS)`

Core Hit Points (CHP)

The CHP formula is: `CON SCORE + 2` or the Racial Core Hit Point formula.

Extended Hit Points (XHP)

XHP is a measure of a character's ability to turn a direct hit into a graze or a glancing blow with less serious consequences. XHP goes up with level, giving high-level characters more ability to shrug off attacks. Most types of damage reduce XHP.
The Starting XHP formula is: `((3 + CON MODIFIER) X 2)`
The Leveling XHP formula is: `(3 + CON MODIFIER)`

Recoil Reduction

Recoil reduction is the stat that determines how recoil affects you as a character. When performing various firearm attacks, they may have what is called the "Recoil Penalty", which is governed by the Caliber Recoil Penalty of the caliber that the character is firing. This is negated firstly by the Recoil Reduction Statistic that the character has, then any bonuses from feats or equipment, and finally their attack bonus. It is possible for the Recoil Reduction to be negative, adding penalties to recoil.
The formula for Recoil Reduction is: `STR SCORE - 10`

Carry Capacity

A character's carrying capacity depends directly on the character's STR score.

Medium Load A character is medium encumbered when they are carrying over their total carrying capacity but less than twice their carrying capacity. A medium encumbered character performs as if their AGI modifier were no higher than +3. In addition, the character takes a –3 encumbrance penalty on attack rolls and checks involving the following skills: Acrobatics, Athletics, and Stealth. This encumbrance penalty stacks with any armor penalty that may also apply. A medium encumbered character spends 2 Combat Points per 5' to move.

Heavy Load A character is heavily encumbered when they are carrying over twice their total carrying capacity but less than three times their carrying capacity. A heavily encumbered character performs as if their AGI modifier were no higher than +1. In addition, the character takes a –6 encumbrance penalty on attack rolls and checks involving the following skills: Acrobatics, Athletics, and Stealth. This encumbrance penalty stacks with any armor penalty that may also apply. A heavily encumbered character spends 3 Combat Points per 5' to move. No character can move or perform any other actions while carrying more than their heavy load.

Lifting and Dragging A character can lift their carrying capacity load over their head. A character can lift up to six times their carrying capacity off the ground, but they can only stagger around with it. While overloaded in this way, the character loses any AGI bonus to DEF and can only move 5' per round (for 12 Combat Points). A character can generally push or drag along the ground up to ten times their carrying capacity load. Favorable conditions (smooth ground, dragging a slick object) can double these numbers, and bad circumstances (broken ground, pushing an object that snags) can reduce them.

Carrying Capacity List	Calculation
Carrying Capacity	STR SCORE * 4 lbs
Maximum Medium Load	STR SCORE * 8 lbs
Maximum Heavy Load	STR SCORE * 12 lbs
Lift Over Head	STR SCORE * 4 lbs
Lift Off Ground	STR SCORE * 24 lbs
Drag	STR SCORE * 40 lbs

Table 3: Carrying Capacity

Bigger and Smaller Creatures The Carry Capacity formula is for Medium bipedal creatures. Larger and Smaller bipedal creatures can carry more or less depending on their size category. Quadrupeds, such as horses can carry heavier loads in general. Multiply the Carry Capacity amounts by the number given on the following table to determine the creature's actual carrying capacity, rounded up.

Size	Bipedal	Quadruped
Fine	.125	.25
Diminutive	.25	.50
Tiny	.50	.75
Small	.75	1
Medium	1	1.5
Large	2	3
Huge	4	6
Gargantuan	8	16
Colossal	16	24

Table 4: Carrying Capacity of Different Sizes

Mental Limit

Mental Limit is a representation of a character's mental capacity to use Magic, Psionics, and Incantations. The value for Mental Limit can be effected by the character's race, so be sure to verify that you are using the correct calculation. In games without Magic, Psionics, or Incantations, Mental Limit should not be calculated.
The formula for the Mental Limit is : ((6+WIS Score)×Character Level)+40 or the Racial Mental Limit formula.

Cane Creating John Q.

After all of the basics are complete for John Q, Cane finishes with the rest of the character, adding the important notions on the character sheet:

- **BAB:** John Q is level 1, so his BAB is +1.
- **Attack Bonuses**
  - **Melee Attack Bonus:** John Q has a Focus of +0, and a BAB of +1, so his melee attack bonus is +1
  - **Ranged Attack Bonus:** John Q has a Marksmanship of +2, and a BAB of +1, so his ranged attack bonus is +2
- **Combat Points:** John Q is human, so he has 15 Combat Points
- **Defense:** John Q has a Agility modifier of +1, making his standard defense a total of 11. He also has a touch defense of 11, and a flat footed defense of 10, as he is not wearing any armor. Because John is a medium sized creature, a human, his defense does not change.
- **Saving Throws**
  - **Reflex:** John Q's Reflex Saving Throw is +1, as he has a +1 Agi modifier.
  - **Fortitude:** John Q's Fortitude Saving Throw is +1, as he has a +1 Con modifier.
  - **Will:** John Q's Will Saving Throw is -1, as he has a -1 Wis modifier.
- **Core Hit Points:** John Q has 14 Core Hit Points, as he a Con score of 12.
- **Extended Hit Points:** John Q has 8 Extended Hit Points, as his Con Modifier is +1
- **Recoil Reduction:** John Q has a +0 for recoil reduction, as his Str score is 10.
- **Carrying Capacity:** John Q can comfortably carry 40 lbs before he is medium encumbered, 80 lbs before he is heavily encumbered, and 120 lbs before he is unable to act or move.
- **Mental Limit**: John Q's mental limit is 54, as his Wis Score is 8.

Step 6: Character Option Points (COP)

After finishing your character's ablities and stats, the next step is to set the Character Option points. Character option points should be selected according to the character's specifications, and how the player wishes to play or focus on the character. When playing a character that starts at a level higher than 1, it is best to do the character option points level by level. Each character gains 4 Character Option Points per level.

Cost	Level 1 Benefit	Level 2+ Benefit
1 COP	+2 Base Save Bonus in one area (Max twice per lvl, per save)	+1 Base Save Bonus in one area (Max twice per lvl, per save)
1 COP	+15 additional Skill Points	+3 additional Skill Points
1 COP	+2 additional XHP	+1 additional XHP

Table 5: Character Option Points

Base Save Bonus (BSB)

Base save bonuses are the basic ability for a character to resist one of three kinds of sudden effects. A character can purchase no more than two base save bonus increases per save type.

Skill Points

Skill points are how a character is measured in the various skills in Ops and Tactics; the more skillpoints you have, the more skillpoints you can spend. There is no limit on the amount of purchase a character can spend on these points.

Extended Hit Points (XHP)

XHP is a measure of a character's ability to turn a direct hit into a graze or a glancing blow with less serious consequences.

Cane Creating John Q.

Cane decides that John Q needs to be all around, as he will be a bodyguard. He spends his COP in the following way:

- **Base Save Bonus:** 1 COP to increase John Q's Reflex. Because this is the first level, that increase is multiplied by 2. With this increase John Q's Reflex Saving Throw will be +3. `[1 + (1 * 2) = 3`
- **Additional Skill Points:** 1 COP to increase the skill points John Q receives at first level. With this increase John Q's gains 15 additional skill points.
- **Additional XHP:** 2 COP to increase the Extended HP of John Q at first level. With this increase, John Q's gains +4 additional XHP.

Step 7 (1st level only) : Miscellaneous Character information

This step includes anything that may or may not affect the character. Things such as descriptions, age, job history, likes and dislikes, and other things that flesh out the character, including equipment.

Experience Points

Level	EXP Required to Reach Level
1	0
2	1,500
3	6,000
4	13,500
5	24,000
6	37,500
7	54,000
8	73,500
9	96,000
10	121,500
11+	((Targeted level - 1) × (Targeted level - 1)) × 1500

Table 6: Experience Point Cost

Characters always start at 0 Experience Points, regardless of what level they start at. After every level, a character's Experience Points return to 0, and they have to build up to the next level. Any Experience Points left over from leveling are applied to the character after they return to zero, rolling over from the last level.

Cane Creating John Q.

After all of the increases and statistics have been laid out, Cain begins to fill in detail for John Q.
The wealth points that are acquired from the occupation are for incidental use, as his basic needs such as lodging, basic clothing and food are taken care of thanks to having the occupation in the first place.
John Q' first purchases a Licensed level License, that allows him to both carry, and purchase firearms. This cost him 5 WP, and can be purchased immediately.
He first heads to the tailor's shop, and purchases two sets of Mild Business Clothing, under the guise that his clientele will prefer he wear suits to jeans and a t-shirt. This cost him 10 WP for two sets.
After visiting the tailor's shop, he heads to the armorer's shop, purchasing a set of Low Profile armor styled as a formal style vest, to protect himself from any possible harm. This cost him 18 WP.
With his armorer's shopping done, he heads to the weapon shop, looking for a pair of weapons to suit his new career. The shop keeper shows him a few handguns first, John Q deciding on a new in box Ruger SP101, chambered in .327 Federal Magnum for his sidearm, preferring to stick to revolvers for the reliability and the smaller frame to hide the weapon a bit easier. He selects a shoulder holster to be worn under his suit jacket, and purchases two speedloaders as well, for the revolver. Finally, he purchases two boxes of ammunition; a single box of Standard Pressure FMJ Heavy Rimmed Ammunition, which contains 50 rounds, and a single box of High Pressure SJHP Heavy Rimmed Ammunition, that contains 20 rounds. He uses the FMJ in the range, testing and getting used to his new sidearm. This all cost him 26 WP; The Revolver cost him 20 WP, the holster cost him 3 WP, the ammunition cost him a total of 3 WP, and the use of the range cost him nothing, as the owner let him use it as he purchased a new firearm.
As he leaves the range to collect his things, he spots a used Harrington & Richardson Pardner Pump Protector on the wall of the weapon's shop. Asking the shop owner to see it, the shop owner informs him that normally that shotgun cost 10 WP new, but because it's used, in good condition, he can let him have it for 7 WP. John Q hastily agrees, purchasing the shotgun and a single box of 12 Gauge 00 Buckshot, that contains 25 shells. This cost him 8 WP. The shop keeper graciously throws in a simple nylon case for John to carry his weapon out, and John heads off, ready for his first day on the job.

Defining your Character

Name A name helps you define your character's background and ethnic origin. The name may fit your character's abilities or it may be dramatically different. A character's name also proves clues to his age and heritage.

Age As the character ages, their physical ability scores decrease and their mental ability scores increase as detailed on the following table. The GM can decide what age brackets are suitable for each category, depending on the race of the character.

Age Category	Ability Adjustments
Child	–3 to STR and CON; –1 to DEX, INT, WIS and CHA
Young adult	Original Scores
Adult	Original Scores
Middle age	–2 to STR, DEX, and CON; +2 to INT, WIS and CHA
Old	–3 to STR, DEX, and CON; +3 to INT, WIS and CHA
Venerable	–4 to STR, DEX, and CON; +4 to INT, WIS and CHA

Table 7: Aging Effects

Height and Weight When choosing your character's height and weight, try and keep his ability scores in mind, and what they say on the overall appearance of your character. You can also denote any specific or unique markings on the character, such as tattoos, scars, moles, and freckles.

Character Level Examples

Below are some examples of various analogs to levels in Ops and Tactics. This is by no means an exhaustive list.
Level 1-2 Lightly Skilled Combatants (Rookie Police Officers, Rank Private to Private First Class in Armed Forces)
Level 3-5 Moderately Skilled Combatants (Veteran Police Officers and Field Training Officers, Rank Corporal to Sergeant First Class in Armed Forces)
Level 6-7 Very Skilled Combatants (S.W.A.T. Team Police Officers, Rank Master Sergeant to Sergeant Major in Armed Forces, Special Forces Groups)
Level 8-10 Highly Skilled Combatants (Black Ops Groups, John Wick, Solid Snake, Big Boss, Tequila Yuen, Vincent, Barry Burton, Leon Kennedy, Nicholas J. Fury, Rally Vincent)
Level 11+ Extremely Skilled Combatants (Tier 1 Operator Groups, Bean Bandit)

Chapter III

Occupations

Starting Occupation

A character may hold other jobs as their career unfolds, but the benefits of a starting occupation are only applied once, at the time of character creation. Many starting occupations have initial requirements that the character must meet to qualify for the occupation. If a character is selecting their first occupation they only need to meet the initial requirements, not the hiring requirements. Each occupation provides a number of additional permanent focused skills that the character can select from a list of choices. These are selected first, before focused skills are selected. When selecting the standard focused skills, if the skill selected is already an occupational skill for the character, they gain a +1 bonus for that skill.

Every level, starting with the 1st level, a character also receives an additional +1 in the selected skill(s) they choose with their occupation.

Some starting occupations provide a bonus feat. A character still must meet any prerequisites for these bonus Feats.

Finally, a starting occupation determines how many Wealth Points a character receives at start, and what their biweekly salary is. The Wealth Points that are received to start with and biweekly are considered surplus for whatever a character may need. Their housing, basic food, and clothing needs are taken care of.

Choose one occupation from the available selections and apply the benefits to the character as noted in the occupation's description.

Charisma and Wealth

Charisma can greatly increase or hinder a character's total wealth output. Being able to negotiate and parlay successes can add up over time. Inversely, being bad at negotiations can be quite expensive.

For the Starting Wealth Points, a character gains a +10 WP bonus per +1 Charisma Modifier they have, when they roll their starting wealth points. For the Biweekly Wealth Points, a character gains a +5 WP bonus per +1 Charisma Modifier they have, when they roll their biweekly wealth points.

For the Starting Wealth Points, a character gains a -10 WP bonus per -1 Charisma Modifier they have, when they roll their starting wealth points. For the Biweekly Wealth Points, a character gains a -5 WP bonus per -1 Charisma Modifier they have, when they roll their biweekly wealth points.

These bonuses or penalties are added onto the total roll of the Wealth points.

Changing Occupations

A character will rarely keep one job their entire life. When changing jobs, the character first loses their current job, and becomes unemployed for at least two weeks, relinquishing their old salary. Then, if a character meets the requirements to enter their new job, they enter it, and pick from the skills listed, and receive the new job's biweekly salary from now on. They do not select any of the bonus feats for the job, when entering it. They must meet both the starting requirements, and the job change requirements, in order to qualify for the job.

Occupations

Academic

Academics include librarians, archaeologists, scholars, professors, teachers, and other educated professionals.

Starting Requirements Age 23+

Job Change Requirements A Knowledge (Any), Craft (Writing), or Technology Use skill modifier of +15 or greater, *or* at least two points in two Linguistics languages.

Skills (2) Craft (Writing), Knowledge (Any), Linguistics or Technology Use.

Starting Wealth Points 4d4×10 (Average 100)

Biweekly Wealth Points 2d4×10 (Average 50)

Adventurer

Adventurers include professional daredevils, big game hunters, relic hunters, explorers, extreme sports enthusiasts, field scientists, thrill-seekers and others called to face danger for a variety of reasons.

Starting Requirements Age 15+

Job Change Requirements An Athletics, Acrobatics, Drive, Pilot, or Ride skill modifier of +15 or greater.

Skills (2) Athletics, Acrobatics, Demolitions, Disable Device, Drive, Knowledge (Arcane Lore, Streetwise, or Technology), Pilot, Ride, Stealth, or Treat Injury

Occupational Feats (1) Archaic Weapon Proficiency (Any), Brawl, Personal Firearms Proficiency, or Exotic Weapon Proficiency.

Starting Wealth Points 8d4 (Average 20)

Biweekly Wealth Points 4d4 (Average 10)

Athlete

Athletes include amateur athletes or Olympic quality and professional athletes of all types, including gymnasts, weight trainers, wrestlers, boxers, martial artists, swimmers, skaters and those who engage in any type of competitive sports.

Starting Requirements DEX *or* STR 13, Age 14+

Job Change Requirements An Athletics, Acrobatics, or Drive skill modifier of +15 or greater.

Skills (1) Athletics, Acrobatics, or Drive

Occupational Feats (1) Combat Martial Arts, Evasive Martial Arts, Defensive Martial Arts, Brawl, Dodge, Skill Focus(Athletics), Skill Focus(Acrobatics), or Skill Focus(Drive)

Starting Wealth Points (2d4+3)×10 (Average 80)

Biweekly Wealth Points (1d4+3)×10 (Average 55)

Blue Collar

Blue collar occupations include factory workers, food service jobs, construction, service industry jobs, taxi drivers, postal workers and any other jobs that are usually not considered to be desk jobs.

Starting Requirements Age 18+

Job Change Requirements An Animal Handling, Drive, or Ride skill modifier of +15 or greater, *or* a Craft (Mechanical, Structural, Chemical, or Electronic) skill modifier of +10 or greater.

Skills (2) Animal Handling, Craft (Mechanical, Structural, Chemical or Electronics), Disable Device, Drive, or Ride.

Starting Wealth Points (1d4+3)×10 (Average 55)

Biweekly Wealth Points 11d4 (Average 28)

Celebrity

A celebrity is anyone who has been thrust into the spotlight of the public eye. Actors, entertainers of all types, newscasters, radio and television personalities and more fall under celebrity.
Starting Requirements Age 15+
Job Change Requirements A Craft (Visual Art or Writing) or Perform (Any) skill modifier of +10 or greater *and* 300 WP which must be paid out for expenses.
Skills (1) Craft (Visual art or Writing) or Perform (Any).
Starting Wealth Points 12d4×10 (Average 300)
Biweekly Wealth Points 6d4×10 (Average 150)

Creative

The creative occupation covers artists of all types of people who turn their creative spark into a career. Illustrators, copywriters, cartoonists, graphic artists, novelists, columnists, actors, sculptors, game designers, musicians, screenwriters, photographers and web designers all fall under this occupation.
Starting Requirements Age 15+
Job Change Requirements A Craft (Visual Art or Writing) or Perform (Any) skill modifier of +18 or greater *or* a Technology Use or Knowledge (Arcane Lore or Art) of +15 or greater.
Skills (2) Craft (Visual art or Writing), Knowledge (Arcane Lore or Art), Perform (any), or Technology Use.
Occupational Feats (1) Skill Focus (Visual Arts), Skill Focus (Writing), Skill Focus (Perform(Any)), or Skill Focus (Knowledge)
Starting Wealth Points 1d4×10 (Average 25)
Biweekly Wealth Points 5d4 (Average 13)

Criminal

Criminals include con artists, burglars, thieves, crime family soldiers, pirates, gang members, bank robbers, hit men, drug dealers and other types of career criminals.
Starting Requirements Age 15+
Job Change Requirements None
Skills (2) Craft (Pharmaceutical or Chemical), Disable Device, Knowledge (Streetwise), Presence, or Stealth.
Occupational Feats (1) Personal Firearms Proficiency, Simple Weapon Specialist, or Brawl
Starting Wealth Points (1d4+1)×10 (Average 35)
Biweekly Wealth Points 7d4 (Average 17)

Doctor

A doctor can be a Physician (General Practitioner or Specialist), a Surgeon, a Psychiatrist or Psychologist, or a Pharmacist.
Starting Requirements Age 25+
Job Change Requirements A Craft (Pharmaceutical), Knowledge (Behavioral Sciences or Earth and Life Sciences), or Treat Injury skill modifier of +18 or greater.
Skills (2) Craft (Pharmaceutical), Knowledge (Behavioral Sciences or Earth and Life Sciences), or Treat Injury
Occupational Feats (1) Skill Focus (Knowledge) or Skill Focus (Craft(Pharmaceutical))
Starting Wealth Points 8d4×10 (Average 200)
Biweekly Wealth Points 4d4×10 (Average 100)
Equipment Notes Doctors receive the Restricted license for all medical related equipment.

Emergency Services

Rescue workers, firefighters, paramedics, hazardous material handlers and emergency medical technicians all fall under this category.
Starting Requirements Age 18+
Job Change Requirements An Acrobatics or Athletics skill modifier of +10 or greater, a Treat Injury skill modifier of +10 or greater *and* a Drive, Knowledge (Earth and Life sciences or Technology) or Ride skill modifier of +10 or greater.
Skills (2) Acrobatics, Athletics, Drive, Knowledge (Earth and Life Sciences or Technology), Ride, or Treat Injury
Occupational Feats (1) Skill Focus (Treat Injury) or Skill Focus (Drive)
Starting Wealth Points (1d4+1)×10 (Average 30)
Biweekly Wealth Points 6d4 (Average 15)

Equipment Notes

Firefighters and Rescue Workers are issued a plastic helmet and a Turnout coat, and Paramedics/EMS and EMTs are issued a Standard First Aid Kit, but can also be issued a full "Red Bag" (See GM Notes). All emergency services receive the Restricted license for all medical related equipment.

Entrepreneur

Entrepreneurs are business owners, obsessed about being their own boss. They believe in themselves, have confidence, and the ability to acquire funds to fuel their money-making ventures.
Starting Requirements Age 18+
Job Change Requirements A Knowledge (Business, Civics or Technology) skill modifier of +15 or greater *and* 200 WP which must be paid out for various start up costs.
Skills (2) Knowledge (Business, Civics or Technology), or Speechcraft.
Starting Wealth Points 10d4×10 (Average 250)
Biweekly Wealth Points 5d4×10 (Average 125)

Investigative

There are a number of jobs that fit within this occupation, including investigative reporters, photojournalists, private investigators, police detectives, criminologists, federal agents, criminal profilers, espionage agents, and any others who use their skills to gather information and analyze clues.
Starting Requirements Age 23+
Job Change Requirements A Craft (Visual Art or Writing) or a Knowledge (Streetwise) skill modifier of +15 or greater *and* a Perception skill modifier of +15 or greater.
Skills (2) Craft (Visual Art or writing), Knowledge (Streetwise), Perception, Presence, Speechcraft or Technology Use
Occupational Feats (1) Skill Focus (Perception), Skill Focus (Presence), or Light Armor Proficiency
Starting Wealth Points (2d4+2)×10 (Average 60)
Biweekly Wealth Points (1d4+2)×10 (Average 30)

Equipment Notes

Federal agents and police detectives are issued the badge of their respective departments, a backup or full-sized semi-automatic handgun in either 9x19mm, .38 Special, .357 Magnum, .357 Sig, .40 S&W, or .45 ACP that costs 30 WP or less, a pair of steel handcuffs, and a tactical holster. They may take the WP given to them, and add their own money, and purchase a more expensive firearm, as long as it meets the caliber requirements. The WP allocated for the issued firearm is for the firearm and extra magazines or speedloaders only, and does not cover any upgrades. JHP ammunition is provided for this firearm by the department. Federal agents or police detectives will only be issued a handgun if they have the Personal Firearms Proficiency feat. Federal agents, police detectives, and other Law Enforcement related jobs receive the Military and Police license for firearms and other job-related equipment.

Law Enforcement

Law enforcement personnel include uniformed state police, deputy sheriffs, state troopers, S.W.A.T. members, and military police.
Starting Requirements Age 20+
Job Change Requirements An Athletics or Acrobatics skill modifier of +10 or greater, a Knowledge (Civics) skill modifier of +10 or greater, a Drive skill modifier of +10 or greater, *and* a Knowledge (Streetwise) or Perception skill modifier of +10 or greater.
Skills (2) Demolitions, Drive, Knowledge (Civics, Earth and Life Sciences, or Streetwise), Perception, or Presence.
Occupational Feats (1) Brawl, Evasive Martial Arts, or Light Armor Proficiency
Starting Wealth Points (1d4+3)×10 (Average 55)
Biweekly Wealth Points 11d4 (Average 28)

Equipment Notes

Police officers, state troopers, deputy sheriffs, and S.W.A.T. members: see Investigative equipment notes.

Standard Issue Vs. Player's Choice

Choosing a sidearm can be an arduous choice. There are many things to be considered, such as caliber, capacity, and upgrade points, as well as cost. A good alternative to this to have the GM select a firearm as a standard issue sidearm for the police force. This guarantees uniformity in magazines, spare parts, and ammunition, as well as familiarity. Popular firearms include the Glock 17, Glock 19, Glock 22, Glock 23, Beretta 92FS, Smith and Wesson M&P, Sig-Sauer P320, and Springfield Armory GI 1911A1.

Military

Military covers any of the branches of the armed forces, including the Army, Navy, Air Force, Marines, National Guard and the Coast Guard, as well as the various elite training units.
Starting Requirements Age 18+
Job Change Requirements An Athletics or Acrobatics skill modifier of +10 or greater.
Skills (2) Acrobatics, Athletics, Drive, Demolitions, Pilot, Knowledge (Tactics or Survival), Perception, or Stealth
Occupational Feats (1) Brawl, Combat Martial Arts, Evasive Martial Arts, Light Armor Proficiency, Personal Fire Arms Proficiency, or Simple Weapon Specialist (Any).
Starting Wealth Points (1d4+1)×10 (Average 35)
Biweekly Wealth Points 6d4 (Average 15)
Equipment Notes Military personnel are issued Fatigues of their branch, as well as a dress uniform. If a character is on active duty in a combat area or on assignment, the equipment for a character in the military profession is based on what branch, type of classification, and country they belong to. While on active duty in a combat area or on assignment military personnel have the Military and Police license.

Religious

Ordained clergy of all persuasions, as well as theological scholars and experts on religious studies fall within the scope of this occupation.
Starting Requirements Age 23+
Job Change Requirements None
Skills (2) Knowledge (Arcane Lore, Behavioral Sciences, History, or Theology and Philosophy), or Perception.
Occupational Feats (1) Focused Saving Throw (Will) or Skill Focus (Knowledge(Any))
Starting Wealth Points 2d4×10 (Average 50)
Biweekly Wealth Points 1d4×10 (Average 25)

Rural

Farm workers, hunters, and others who make a living in rural communities fall under this category.
Starting Requirements Age 15+
Job Change Requirements An Athletics or Acrobatics skill modifier of +10 or greater *and* an Animal Handling or Ride skill modifier of +12 or greater
Skills (2) Athletics, Acrobatics, Knowledge (Survival), Animal Handling, or Ride.
Occupational Feats (1) Personal Firearms Proficiency, Archaic Weapon Proficiency (Any), or Brawl.
Starting Wealth Points 8d4 (Average 20)
Biweekly Wealth Points 4d4 (Average 10)

Security

Security includes private armed security, private military contractors, bodyguards, and armored car drivers, or anyone who is paid money to protect an object, person, or location.
Starting Requirements Age 21+
Job Change Requirements An Athletics or Acrobatics skill modifier of +10 or greater *and* a Knowledge (Streetwise) or Perception skill modifier of +10 or greater.
Skills (2) Drive, Knowledge (Streetwise, Survival, or Tactics), Perception, or Presence.
Occupational Feats (1) Brawl, Combat Martial Arts, or Simple Weapon Specialist.
Starting Wealth Points 2d4×10 (Average 50)
Biweekly Wealth Points 1d4×10 (Average 25)

Student

A student can be in high school, college, or graduate school. If you select this starting occupation, you must also pick an area of study and the skills that go along with it.
Starting Requirements Age 15+
Job Change Requirements None
Skills (3) Craft (Visual Arts, Writing, Chemical, Electronics, Mechanical, or Structural), Knowledge (Art, Arcane Lore, Behavioral Sciences, Business, Civics, History, Technology, Physical Sciences, or Earth and Life Sciences), or Perform (Any)
Starting Wealth Points 6d4 (Average 15)
Biweekly Wealth Points 3d4 (Average 8)

Technician

Scientists and engineers of all types fit within the scope of this occupation.
Starting Requirements Age 23+
Job Change Requirements A Craft (Chemical, Electronics, Mechanical, or Structural), Knowledge (Behavioral Sciences, Technology, Physical Sciences, or Earth and Life Sciences) or Technology Use skill modifier of +16 or greater.
Skills (2) Craft (Chemical, Electronics, Mechanical, or Structural), Knowledge (Behavioral Sciences, Technology, Physical Sciences, or Earth and Life Sciences), or Technology Use.
Starting Wealth Points (3d4+1)×10 (Average 85)
Biweekly Wealth Points 16d4 (Average 40)

Unemployed

This occupation is a placeholder for when someone is between jobs, those not old enough to have a job, or those that do not have a fully steady job. People working with temp services, vagabonds and panhandlers, children, and those that scrape by doing odd jobs all fall into this category.
Starting Requirements None
Job Change Requirements None
Skills (2) Any.
Occupational Feats (1) Any.
Starting Wealth Points 2d4 (Average 5)
Biweekly Wealth Points 1d4 (Average 3)

White Collar

Office workers and desk jockeys, lawyers, accountants, insurance agents, bank personnel, financial advisers, tax preparers, clerks, sales personnel, real estate agents and a variety of middle management all fall within the scope of this occupation.
Starting Requirements Age 23+
Job Change Requirements A Knowledge (Art, Business, Civics, History, or Technology) or Technology Use skill modifier of +15 or greater.
Skills (2) Knowledge (Art, Business, Civics, History, or Technology), Presence, Pilot, Speechcraft, or Technology Use.
Starting Wealth Points 6d4×10 (Average 150)
Biweekly Wealth Points 3d4×10 (Average 75)

Chapter IV

Skills

Skills represent a wide variety of abilities, and a character gets better at them as their ability score increases, or as they gain levels.

Acquiring Skills

At each level, a character gets skill points that are used to buy skills. How much COP a character spends and INT modifier determine the number of points received. If the character buys a focused skill, they get 1 rank in the skill for each skill point spent. If the character buys a unfocused skill, they get 1 rank per 2 skill points. The rules assume that a character can always find a way to learn any skill. However, the GM may impose limits depending on the circumstances.

Using Skills

To make a skill check, roll `3d6+skill modifier`

The skill modifier is equal to the sum of the skill ranks, ability modifier, and any miscellaneous modifiers.

- **Skill Ranks** A character's rank in a skill is based on the number of skill points the character has invested in the skill. Some skills may be used even if the character has no ranks in the skill; doing this is known as making an untrained skill check. When making a skill check, a character adds the skill's rank to the roll as part of the skill modifier. Ranks indicate how much training or experience a character has with a given skill.

- **Ability Modifier** The ability modifier used in the skill check is the modifier for the skill's key ability (the ability associated with the skill's use). The key ability of a skill is noted in its description.

- **Occupational Modifiers** This modifiers are gained as a character levels up in their selected occupational skill.

- **Equipment Modifiers** Equipment modifiers are modifiers that are gained from using specific equipment during skill checks. They can be both situational, or absolute, depending on the type of equipment.

- **Miscellaneous Modifiers** Miscellaneous modifiers include bonuses provided by feats, and penalties such as the ones associated with the non-proficient use of armor, among others.

Opposed Checks

Some skill checks are opposed checks. They are made against a randomized number, usually another character's skill check result.

For ties on opposed checks, the character with the higher key ability score wins. If those scores are the same, roll again.

Taking 10

When your character is not being threatened or distracted, you may choose to take 10. Instead of rolling for the skill check, calculate the result as if you had rolled a 10. For many routine tasks, taking 10 makes them automatically successful. Distractions or threats (such as combat) make it impossible for a character to take 10.

Assisting

A character can assist another character in their skill checks when applicable. To assist a character, the TN of the task is divided by 4, and the assisting character rolls their skill check in the applicable skill. If the character succeeds, the original character making the check gets a +1 bonus. For every full success beyond the original, the original character gains an additional +1 bonus.

> Example: *If the assist TN is 4 and the assisting character rolls a 12, the original character gains a +3 bonus on the check from the assistance.*

Trained Only Skills

A skill listed as Trained Only can only be used if the character has ranks in that skill. If the skill does not have this notion, it can be used, even if the character has no ranks in the skill whatsoever.

Acrobatics (DEX)

This skill allows a character to keep their balance while traversing narrow or treacherous surfaces. The character can also dive, flip, jump, and roll to overcome obstacles and twist their body to escape.

If you take damage while using Acrobatics, you must immediately make another Acrobatics check at the same TN to avoid falling or being knocked prone.

In addition, you can move through a threatened square without provoking an AoO from an enemy by using Acrobatics. When moving in this way, you move at 1 Combat Point per 5'. You cannot use Acrobatics to move past foes if your Combat Point cost is increased due to carrying a medium or heavy load or wearing medium or heavy armor. The TNs listed are used to avoid an AoO due to movement. This TN increases by 2 for each additional opponent avoided in 1 round.

You can also use the Acrobatics skill to make jumps or to soften a fall. The base TN to make a jump is equal to the horizontal distance to be crossed or four times the vertical height. These TNs double if you do not have at least 10 feet of space to get a running start. The only Acrobatics modifiers that apply are those concerning the surface you are jumping from. If you fail this check by 4 or less, you can attempt a Reflex Saving Throw [TN15] to grab hold of the other side after having missed the jump. If you fail the Reflex Saving Throw, you fail to make the jump completely and fall (or land prone, in the case of a vertical jump). For a running jump, the result of your Acrobatics check indicates the distance traveled in the jump (and if the check fails, the distance at which you actually land and fall prone). Halve this result for a standing long jump to determine where you land. When falling more than 10', a character can attempt a Reflex Saving Throw [TN10 + 1 per additional 10' fallen] to soften their fall, reducing the fall damage by half.

You can also use the Acrobatics skill to slip out of bonds and escape from grapples.

Use	TN
Move through a threatened area	10 + Opponent's BAB
Move through an enemy's space	15 + Opponent's BAB
Rope/Bindings	10 + Binder's BAB
Grapple	10 + Grappler's BAB + FOC
Surface Width	**TN**
> 3' wide	0[1]
1-3' wide	5[1]
7-11" wide	10
2-6" wide	20
< 2" wide	25
Acrobatics TN Modifiers	
Slightly obstructed (gravel, sand)	+5
Severely obstructed (cavern, rubble)	+10
Slightly slippery (wet)	+5
Severely slippery (icy)	+10
Slightly sloped (less than 45°)	+5
Severely sloped (45° or more)	+10
Slightly unsteady (boat in rough water)	+5
Moderately unsteady (boat in a storm)	+10
Severely unsteady (earthquake)	+15
Move at normal CP cost on narrow or uneven surfaces	+5[2]

1 No Acrobatics check is needed to move across these surfaces unless the modifiers to the surface increase the TN to 10 or higher.
2 This does not apply to checks made to jump.

Try Again?

Varies. If the situation permits, you may make additional checks, as long as you're not being actively opposed. If the TN to escape from rope or bindings is higher than 18 + your Acrobatics skill bonus, you can't escape from the bonds using Acrobatics.

Time

Making an Acrobatics check to escape from bindings requires 1 minute of work. Escaping from a grapple or pin costs 6 Combat Points. All other Acrobatics check are made as part of another action or as a reaction to a situation.

Animal Handling (CHA)

The character is trained at working with animals and can teach them tricks, get them to follow your simple commands, or even domesticate them.

Handle an Animal

This task involves commanding an animal to perform a task or trick that it knows. If the animal is wounded or has taken any non-lethal damage or ability score damage, the TN increases by 2. If your check succeeds, the animal performs the task or trick on its next action. The TN for handling an animal is TN of the known trick – 5.

Push an Animal

To push an animal means to get it to perform a task or trick that it doesn't know but is physically capable of performing. This category also covers making an animal perform a forced march or forcing it to hustle for more than 1 hour between sleep cycles. If the animal is wounded or has taken any non-lethal damage or ability score damage, the TN increases by 2. If your check succeeds, the animal performs the task or trick on its next action.

Teach an Animal a Trick

You can teach an animal a specific trick with 1 week of work and a successful Animal Handling check against the indicated TN. An animal with an INT score of 1 can learn a maximum of four tricks, while an animal with an INT score of 2 can learn a maximum of eight tricks. Possible tricks (and their associated TNs) include, but are not necessarily limited to, the following:

Attack [TN20] The animal attacks apparent enemies. You may point to a particular creature that you wish the animal to attack, and it will comply if able. Normally, an animal will attack only sentient, mystical beast, giants, or other animals. Teaching an animal to attack all creatures (including such unnatural creatures as undead and aberrations) counts as two tricks.

Come [TN15] The animal comes to you, even if it normally would not do so.

Defend [TN20] The animal defends you (or is ready to defend you if no threat is present), even without any command being given. Alternatively, you can command the animal to defend another specific character.

Down [TN15] The animal breaks off from combat or otherwise backs down. An animal that doesn't know this trick continues to fight until it must flee (due to injury, a fear effect, or the like) or its opponent is defeated.

Fetch [TN15] The animal goes and retrieves an item or object. If you do not point out a specific item, the animal fetches a random object.

Guard [TN20] The animal stays in place and prevents others from approaching. The animal attacks any creature that steps within 20' of the object the animal is guarding, that has not been authorized by the command giver to approach.

Heel [TN15] The animal follows you closely, even to places where it normally wouldn't go.

Perform [TN15] The animal performs a variety of simple tricks, such as sitting up, rolling over, roaring or barking, and so on.

Seek [TN15] The animal moves into an area and looks around for anything that is obviously alive or animate.

Stay [TN15] The animal stays in place, waiting for you to return. It does not challenge other creatures that come by, though it still defends itself if it needs to.

Track [TN20] The animal tracks the scent presented to it. This requires the animal to have the scent ability.

Work [TN15] The animal pulls or pushes a medium or heavy load.

Train an Animal for a General Purpose

Rather than teaching an animal individual tricks, you can simply train it for a general purpose. Essentially, an animal's purpose represents a preselected set of known tricks that fit into a common scheme, such as guarding or heavy labor. The animal must meet all the normal prerequisites for all tricks included in the training package. If the package includes more than three tricks, the animal must have an INT score of 2 or higher.

An animal can be trained for only one general purpose, though if the creature is capable of learning additional tricks (above and beyond those included in its general purpose), it may do so. Training an animal for a purpose requires fewer checks than teaching individual tricks does, but no less time.

Combat Training [TN20] An animal trained to bear a rider into combat knows the tricks attack, come, defend, down, guard, and heel. Training an animal for combat riding takes 6 weeks. You may also upgrade an animal trained for riding to one trained for combat by spending 3 weeks and making a successful Animal Handling check [TN20]. The new general purpose and tricks completely replace the animal's previous purpose and any tricks it once knew. Suitable mounts are trained in this way.

Fighting [TN20] An animal trained to engage in combat knows the tricks attack, down, and stay. Training an animal for fighting takes 3 weeks.

Guarding [TN20] An animal trained to guard knows the tricks attack, defend, down, and guard. Training an animal for guarding takes 4 weeks.

Heavy Labor [TN15] An animal trained for heavy labor knows the tricks come and work. Training an animal for heavy labor takes 2 weeks.

Hunting [TN20] An animal trained for hunting knows the tricks attack, down, fetch, heel, seek, and track. Training an animal for hunting takes 6 weeks.

Performance [TN15] An animal trained for performance knows the tricks come, fetch, heel, perform, and stay. Training an animal for performance takes 5 weeks.

Riding [TN15] An animal trained to bear a rider knows the tricks come, heel, and stay. Training an animal for riding takes 3 weeks.

Rear a Wild Animal

To rear an animal means to raise a wild creature from infancy so that it becomes domesticated. A handler can rear as many as three creatures of the same kind at once.

A successfully domesticated animal can be taught tricks at the same time it is being raised or it can be taught as a domesticated animal later.

Try Again?

Yes, except for rearing an animal.

Time

Varies. Handling an animal costs 6 Combat Points, while pushing an animal is 12 Combat Points. For tasks with specific time frames noted above, you must spend half this time (at the rate of 3 hours per day per animal being handled) working toward completion of the task before you attempt the Animal Handling check. If the check fails, your attempt to teach, rear, or train the animal fails and you need not complete the teaching, rearing, or training time. If the check succeeds, you must invest the remainder of the time to complete the teaching, rearing, or training. If the time is interrupted or the task is not followed through to completion, the attempt to teach, rear, or train the animal automatically fails.

Athletics (STR)

The character is skilled at scaling vertical surfaces and knows how to swim, even in stormy water.

Swimming

Make an Athletics check once per round while you are in the water. Success means you may swim at 5' per 3 Combat Points. If you fail by 4 or less, you make no progress. If you fail by 5 or more, you go underwater.

If you are underwater, either because you failed an Athletics check or because you are swimming underwater intentionally, you must hold your breath. You can hold your breath for a number of rounds equal to twice your CON score, but only if you spend less than 4 Combat Points during your turn. If you spend more than 4 Combat Points, that round counts as you having been underwater for 2 turns. After this period of time you must make a CON check [TN10] to continue holding your breath. For every round you pass this check the TN is increased by 1. If this check is failed, the character begins to drown. The TN for the check depends on the water, as given on the table below.

Each hour that you swim, you must make an Athletics check [TN20] or take 1d6 points of non-lethal damage from fatigue.

Swim	TN
Calm Water	10
Rough Water	15
Stormy Water	20[1]

1 You can't take 10 on a Swim check in stormy water, even if you aren't otherwise being threatened or distracted.

Table 8: Athletics, Swim TN

Climbing

With a successful Athletics check, you can advance up, down, or across a slope, wall, or other steep incline (or even across a ceiling, provided it has handholds) at 5' per 4 Combat Points. A slope is considered to be any incline at an angle measuring less than 60°; a wall is any incline at an angle measuring 60° or more.

The TN of the check depends on the conditions of the climb. Compare the task with those on the Athletics table to determine an appropriate TN. An Athletics check that fails by 4 or less means that you make no progress, and one that fails by 5 or more means that you fall from whatever height you have already attained.

You need both hands free to climb, but you may cling to a wall with one hand while you fire a gun or take some other action that requires only one hand. While climbing, you can't move to avoid a blow, so you lose your DEX bonus to DEF (if any). Anytime you take damage while climbing, make an Athletics check against the TN of the slope or wall. Failure means you fall from your current height and sustain the appropriate falling damage.

Creating Handholds and Footholds

You can make your own handholds and footholds by pounding pitons into a wall. Doing so takes 1 minute per piton, and one piton is needed per 5' of distance. As with any surface that offers handholds and footholds, a wall with pitons in it has a TN of 15. In the same way, a climber with a hand axe or similar implement can cut handholds in an ice wall.

Catch Yourself When Falling

It is practically impossible to catch yourself on a wall while falling, yet if you wish to attempt such a difficult task, you can make an Athletic check [TN(20+wall TN)] to do so. It is much easier to catch yourself on a slope with a Athletic check [TN(10+slope TN)].

Catch a Falling Character While Climbing

If someone climbing above or adjacent to you falls, you can attempt to catch the falling character if they are within your reach. Doing so requires a successful melee touch attack against the falling character (though they can voluntarily forgo any DEX bonus to DEF if desired). If you hit, you must immediately make a Athletics check [TN(10+wall TN)]. Success indicates that you catch the falling character, but his total weight, including equipment, cannot exceed your heavy load limit or you lose your grip and fall. If you fail the Athletics check by 4 or less, you fail to stop the character's fall but don't lose your grip on the wall. If you fail it by 5 or more, you fail to stop the character's fall and lose your grip on the wall as well.

Special

Creatures that are adapted to swimming can swim through water without making Athletics checks. The creature gains a +8 racial bonus on any Athletics check to perform a special action or avoid a hazard. The creature can always choose to take 10 on an Athletics check, even if distracted or endangered when swimming. You can use a rope to haul a character upward (or lower a character) through sheer strength. You can lift double your maximum load in this manner.

Climbing	TN
A slope too steep to walk up, or a knotted rope with a wall to brace against	0
A rope with a wall to brace against, or a knotted rope	5
Surface with ledges to hold on to and stand on	10
Any surface with adequate handholds and footholds (natural or artificial)	15
An uneven surface with narrow handholds and footholds	20
A rough surface	25
An overhang or ceiling with handholds only	30
A perfectly smooth, flat vertical (or inverted) surface	—
Climb TN Modifiers[1]	
Climbing a location where you can brace against two opposite walls	–10
Climbing a corner where you can brace against perpendicular walls	–5
Surface is slippery	+5

Table 9: Athletics, Climb TN

1 These modifiers are cumulative; use all that apply.

Try Again?

Yes, if the situation permits.

Time

A successful Athletics check allows you to swim at 3 Combat Points per 5' and climb at 4 Combat Points per 5'. Each movement that includes any climbing requires a separate Athletics check. Catching yourself or another falling character doesn't take any Combat Points.

Craft (INT)

You are skilled at making various objects and substances.

This skill encompasses several categories, each of them treated as a separate skill: Chemical, Electronics, Mechanical, Pharmaceutical, Structural, Visual Arts, and Writing.

Craft skills are specifically focused on creating objects. To use a Craft skill effectively, a character must have a kit or some other set of basic tools. The WP cost of this equipment varies according to the particular Craft skill.

To use Craft, first decide what the character is trying to make and consult the category descriptions below. If the character has enough WP to purchase the raw materials, make the Craft check against the given TN for the object in question. If the character fails the check, they do not make the object, and the raw materials are wasted (unless otherwise noted).

Generally, a character may take 10, when using a Craft skill to construct an object. A character may take 10 on a repair check or accomplish a jury-rig repair. Multiple attempts may be attempted, stacking on the previous attempt, each time using the same amount of raw materials each time, taking the same amount of time and adding each subsequent roll together, until the TN is achieved or the character chooses to stop.

The character may try as many times as they like, as long as they can afford the raw materials cost for each attempt.

Craft (Chemical) Trained Only

This skill allows a character to mix chemicals to create acids, bases, explosives, and poisonous substances.

A character without a chemistry kit takes a –6 penalty on Craft (Chemical) checks.

Acids and Bases

Acids are corrosive substances that react with metals and carbonates. Bases can be thought of as the chemical opposites of acids, that neutralize acids but are not as strong as acids. A base of a certain type counteracts an acid of the same or less potent type. A character may use Craft (Pharmaceutical) instead of Craft (Chemical) when creating acids or bases.

Item	Cost	Craft TN	Time	Yield
Mild Acid	2	15	15 minutes	32 units
Mild Base	2	10	15 minutes	32 units
Potent Acid	4	20	20 minutes	16 units
Potent Base	4	15	20 minutes	16 units
Concentrated Acid	8	30	30 minutes	8 units
Concentrated Base	8	25	30 minutes	8 units

Table 10: Craft (Chemical), Acids & Bases

Explosives

Building an explosive from scratch is dangerous. If the Craft (Chemical) check fails, the raw materials are wasted. If the check fails by 5 or more, the explosive compound detonates as it is being made, dealing half of its intended damage to the builder and anyone else in the blast radius.

If the Craft check succeeds, the final product is a unit of the intended explosive. An explosive compound does not include a fuse or detonator. Connecting a fuse or detonator requires a Demolitions check.

Item	Cost	Craft TN	Time	Yield
ANFO	1	10	1 hour	100 lbs
Black Powder	1	15	15 minutes	5 lbs
Dynamite	1	20	4 hours	4.5 lbs
Nitroglycerin	2	15	3 hours	1 lbs
Plastic Explosives	1	25	1 day	1 lbs
Tannerite	3	8	15 minutes	5 lbs
Thermite	1	9	5 minutes	8 lbs
TNT	5	25	1 day	1 lbs

Table 11: Craft (Chemical), Explosives

Poisonous Substances

Solid poisons are usually ingested. Liquid poisons are most effective when injected directly into the bloodstream. Gaseous poisons must be inhaled to be effective. The table summarizes the characteristics of various poisons.

If the Craft check succeeds, the final product is a synthesized solid or liquid poison stored in a bottle (containing 5 doses) or a gas stored in a pressurized cylinder. When released, the gas is sufficient to fill a 10'-radius area and takes 1 round to fill the area.

Craft TN The TN of the Craft check to create the given quantity of acid/base, explosive, or poison.

Time The amount of time required for the Craft check.

Raw Material Wealth Point Cost The WP cost represents the cost of the raw materials to craft the desired poison. A bottle holds five doses, while a cylinder holds enough gas to fill a 10'-radius area.

Save TN The Target Number of the Fortitude Saving Throw to halve the effects of the poison, rounded up.

Primary Damage The damage a character takes immediately upon failing their Fortitude Saving Throw. This damage is halved upon a successful Fortitude Saving Throw.

Secondary Damage The damage a character takes after 30 seconds of being exposed to the poison if the character fails a second Fortitude Saving Throw. This damage is halved upon a successful Fortitude Saving Throw, rounded up. Ability score damage is temporary, unless marked with an asterisk, in which case the damage is a permanent ability drain. Multiple entries notate that this is checked every 30 seconds. The effects from poison start to subside after 1 day the poison was applied, and the affected character heals ability damage using the healing ability damage rules.

Poisons	Material Cost	Type	Save TN	Craft TN	Damage Primary / Secondary	Restr	Time
Arsenic	4	Solid	15	24	1d4 STR / 2d4 CON	R	4 hours
Atropine (2)	1	Liquid	13	14	1d6 DEX / 1d6 STR	R	1 hour
Blue Vitriol (2)	1	Liquid	12	9	1d2 CON / 1d4 CON	R	1 hour
Chloral hydrate	10	Solid	15	28	1d6 DEX / Unconscious 1d3 hours	R	8 hours
Cyanide	27	Liquid	16	30	1d6 CON / 2d6 CON/ 2d6 CON	M&P	15 hours
Cyanogen	10	Gas	19	28	1d4 DEX / 1d6 CON/ 1d6 CON	M&P	8 hours
DDT	5	Gas	17	20	1d2 STR / 1d4 STR	I	4 hours
Lead Arsenate (gas)	2	Gas	12	17	1d2 STR / 1d4 CON	R	2 hours
Lead Arsenate (solid)	2	Solid	12	18	1d2 STR / 1d4 CON	R	2 hours
Mustard gas	3	Gas	17	26	1d4 CON / 2d4 CON/ 2d4 CON/ 2d4 CON/ 2d4 CON	M&P	8 hours
Paris green (gas)	5	Gas	14	20	1d2 CON / 1d4 CON/ 1d4 CON	None	4 hours
Paris green (solid)	5	Solid	14	24	1d2 CON / 1d4 CON/ 1d4 CON	None	4 hours
Sarin	25	Gas	18	30	1d4 CON / 2d4 CON/ 2d4 CON	I	15 hours
Strychnine	5	Liquid	19	23	1d3 DEX / 2d4 CON/ 2d4 CON	R	4 hours
CS Gas	5	Gas	15	21	Both—Blinded and Stunned 2d4 rounds	R	4 hours
Tranquilizer	2	Liquid	15	24	1d6 DEX / Inebriated 1d6 rounds/ Fatigued 1d6 rounds/ Exhausted 1d2 hours	R	6 hours
VX	125	Gas/Solid	30	42	1d6 CON / 2d6 CON / 2d6 CON / 2d6 CON / 2d6 CON	I	2 days

Table 12: Craft (Chemical), Poisons

Craft (Electronics)

This skill allows a character to build electronic equipment from scratch, such as audio and video equipment, timers and listening devices, or radios and communication devices. When building an electronic device from scratch, the character describes the kind of device they want to construct; then the GM decides whether the device fits the definition of a simple, moderate, complex, or advanced device compared to current technology.

A character without an electronics tool kit takes a –6 penalty on Craft (Electronics) checks.

Simple

This category includes items such as clocks, timers, simple circuits, single mode detonators, and other simple electronics. The TN for these items is 15, the WP cost for a simple device will not exceed 4, and the time taken to build it will not exceed 2 hours.

Moderate

This category includes items such as electronic locks, radios, televisions, and remote controls. The TN for these items is 20, the WP cost for a moderate device will not exceed 20, and the time taken to build it will not exceed 12 hours.

Complex

This category includes items such as computers, cell phones, GPS equipment, and camcorders. The TN for these items is 25, the WP cost for a complex device will not exceed 25, and the time taken to build it will not exceed 24 hours.

Advanced

This category includes items such as server towers, the wiring system for a automobile, and the electrical system for a robot. The TN for these items is 30, the WP cost for a complex device will not exceed 500, and the time taken to build it will not exceed 60 hours.

Repairing

Most Repair checks are made to fix complex or advanced electronic devices. The TN is set by the GM. In general, simple repairs have a TN of 10 to 15 and require no more than a few minutes to accomplish. More complex repair work has a TN of 20 or higher and can require an hour or more to complete. Making repairs also involves a monetary cost when spare parts or new components are needed, represented by either buying or procuring them. If the GM decides this isn't necessary for the type of repair the character is attempting, then the parts are not required.

A character can choose to attempt to jury-rig, or make temporary repairs. Doing this reduces the Repair check TN by 5, and allows the character to make the checks for 12 Combat Points. However, a jury-rigged repair can only fix a single problem with a check, and the temporary repair only lasts until the end of the current scene or encounter. The jury-rigged object must be fully repaired thereafter.

A character can also jury-rig and jump-start an electronic device. The TN for this is at least 15 and it can be higher depending on the presence of security devices.

Repair Task Example	Cost	Repair TN	Time
Simple	1	10	1 min.
Moderate	3	15	10 min.
Complex	6	20	1 hour
Advanced	12	25	10 hours

Table 13: Craft (Electronics), Repairs

Craft (Mechanical)

This skill allows a character to build mechanical devices from scratch, including engines and engine parts, weapons, and other gadgets. When building a mechanical device from scratch, the character describes the kind of device they want to construct, then the GM decides whether the device fits the definition of a simple, moderate, complex, or advanced device compared to current technology.

Simple

This category includes items such as simple mechanical components, single mode detonators, and simple tools. The TN for these items is 15, the WP cost for a simple device will not exceed 4, and the time taken to build it will not exceed 2 hours.
This category can also be used to combine two firearm magazines into one larger magazine, adding the capacity of the magazines together. Any firearm that uses this magazine has a -6 to Stealth.

Moderate

This category includes items such as mechanical locks, components for an engine, Single/Double shot and Bolt action firearms, and complex tools. The TN for these items is 20, the WP cost for a moderate device will not exceed 11, and the time taken to build it will not exceed 12 hours.

Complex

This category includes items such as car engines, and Lever/Pump/Single action firearms. The TN for these items is 25, the WP cost for a complex device will not exceed 25, and the time taken to build it will not exceed 24 hours.

Advanced

This category includes items such as jet engines, complete automobiles, and Semi-automatic, Automatic, and select-fire firearms. The TN for these items is 30, the WP cost for a complex device will not exceed 500, and the time taken to build it will not exceed 60 hours.

Repairing

Most repair checks are made to fix complex or advanced mechanical devices. The TN is set by the GM. In general, simple repairs have a TN of 10 to 15 and require no more than a few minutes to accomplish. More complex repair work has a TN of 20 or higher and can require an hour or more to complete. Making repairs also involves a monetary cost when spare parts or new components are needed, represented by either buying or procuring them. If the GM decides this isn't necessary for the type of repair the character is attempting, then the parts are not required.

A character can choose to attempt to jury-rig, or make temporary repairs. Doing this reduces the repair check TN by 5, and allows the character to make the checks for 12 Combat Points. However, a jury-rigged repair can only fix a single problem with a check, and the temporary repair only lasts until the end of the current scene or encounter. The jury-rigged object must be fully repaired thereafter.

A character can also jury-rig and hot-wire a car or jump-start an engine. The TN for this is at least 15, and it can be higher depending on the presence of security devices.

Repair Task Example	Cost	Repair TN	Time
Simple	1	10	1 minutes
Moderate	3	15	10 minutes
Complex	6	20	1 hour
Advanced	12	25	10 hours

Table 14: Craft (Mechanical), Repairs

Performing Upgrades

A character may perform their own upgrades for their weapons, saving on the cost of sending the weapons out for service and in the case of more illegal upgrades, attracting the attention of police.

Classification	Upgrade Cost	Time	Craft TN
Barrel Upgrades	50%	100%	15 + 5 per barrel upgrade already performed on the firearm
Optics Upgrades	80%	100%	10
Ergonomics and Aesthetics Upgrades	50%	80%	13 + 5 per frame upgrade already performed on the firearm
Firing Mode Upgrades	30%	100%	17 + 10 per firing mode upgrade already performed on the firearm
Internal Upgrades	60%	100%	40 for Precision Upgrade and Clockwork action 20 for all other upgrades
Tactical Upgrades	50%	100%	15

Table 15: Craft (Mechanical), Performing Upgrades

Special

A character without a mechanics tool kit takes a –6 penalty on Craft (Mechanical) checks.

Craft (Pharmaceutical) Trained Only

This skill allows a character to compound medicinal drugs to aid in recovery from treatable illnesses, and aid in recovering health.

Antibacterial/Antiviral These are medicines that help combat disease. An antibacterial/antiviral drug gives a bonus on Fortitude Saving Throws made to resist the effects of a disease. The amount listed is for five doses.

Material Cost	Craft TN	Effect
3	15	+1 to Fort Save for disease
6	20	+2 to Fort Save for disease
9	25	+3 to Fort Save for disease
12	30	+4 to Fort Save for disease
15	35	+5 to Fort Save for disease
18	40	+6 to Fort Save for disease
21	45	+7 to Fort Save for disease

Table 16: Craft (Pharmaceutical), Antibacterial/Antiviral

Analgesics/Painkillers These medicines allow a character to ignore pain and continue fighting, but only for a limited time. When the effects wear off, the healing effect of the painkillers go with it. Painkillers can only be given to a character with at least 1 XHP. A player who has 0 or less CHP has suffered serious injuries and must receive medical attention, and can not use painkillers. Painkillers only affect XHP. Painkillers can be crafted to last longer, heal more XHP, or both. Each upgrade increases the raw material WP cost by 3. The amount listed is for six doses.

Name	Base Craft TN	Length	Strength
Painkillers	10	+4 TN and +3 WP per 1d3 hours	+2 TN and +2 WP per 1d4 XHP restoration

Table 17: Craft (Pharmaceutical), Painkillers

Hemostat Medicine These medicines promote the clotting of blood. They reduce the bleed damage based on the level of the hemostat.

Hemostats can be crafted to heal more bleed damage. Each upgrade increases the raw material WP cost by 2. The amount listed is for ten doses.

Name	Base Craft TN	Strength
Hemostat	12	+1 TN and +2 WP per bleed decrease

Table 18: Craft (Pharmaceutical), Hemostat

Antiseptic Medicine Antiseptics are substances that are applied to destroy microorganisms that are living on objects. These medicines give a bonus to all Treat Injury checks when used. The amount listed is for 20 doses.

Name	Mat Cost	Craft TN	Effect
Weak Antiseptics	1	8	+1 bonus
Standard Antiseptics	3	14	+3 bonus
Strong Antiseptics	6	18	+5 bonus
Concentrated Antiseptics	12	25	+8 bonus

Table 19: Craft (Pharmaceutical), Antiseptic

Antidote Antidotes are substances that are used to counteract poison. The amount listed is for five doses. Antidotes can only counteract liquid or solid poisons.

Name	Material Cost	Craft TN
Antidote	1	15

Table 20: Craft (Pharmaceutical), Antidote

Special

A character without a chemistry kit takes a –6 penalty on Craft (Pharmaceutical) checks.

Craft (Structural)

This skill allows a character to build wooden, concrete, or metal structures from scratch, including bookcases, desks, walls, houses, and so forth, and includes handyman skills like plumbing, house painting, drywall, laying cement, and building cabinets, as well as craft and repair armor and the structural integrity of vehicles. When building a structural device from scratch, the character describes the kind of device they want to construct, then the GM decides whether the device fits the definition of a simple, moderate, complex, or advanced device based on the difficulty.

Simple

This category includes items such as bookshelves, chairs, small tables, and Simple Melee Weapons*. The TN for these items is 15, the WP cost for a simple device will not exceed 4, and the time taken to build it will not exceed 2 hours.

Moderate

This category includes items such as decks, small boats, sheds, and Archaic Melee Weapons*. The TN for these items is 20, the WP cost for a moderate device will not exceed 20, and the time taken to build it will not exceed 12 hours.

Complex

This category includes items such as bunkers, armories, and some Exotic Melee Weapons*. The TN for these items is 25, the WP cost for a complex device will not exceed 25, and the time taken to build it will not exceed 60 hours.

Advanced

This category includes houses of all types. The TN for these items is 30, the WP cost for a complex device will not exceed 500, and the time taken to build it will not exceed 600 hours.

*The Craft TN for a melee weapon fluctuates with the complexity of the melee weapon.

Weaponsmithing

Weaponsmithing is the process of repairing, building, designing and modifying melee and thrown weapons. It encompasses both woodworking and metalworking to create functional, strong weapons.

Crafting a brand new melee weapon When crafting a new weapon, a character must first pick what current category the weapon would fit into, as well as the type of weapon. Variations on a weapon can quickly change a weapon's category and type.

Crafting a melee weapon has the advantage of losing the improvised weapon penalties, including the error range for breaking.

The time listed when crafting the weapons is the average, different factors can change the time required.

Weapon	Craft TN	Mat Cost	Time
Simple Melee Weapons			
Brass Knuckles	13	1	1 day
Push Blade/Punch Dagger	16	1	1 day
Field Knife	17	1	3 days
Survival Knife	15	1	2 days
Pocket Knife	12	1	2 days
Escape Knife	9	1	1 day
Light Club	8	1	3 hours
Medium Club	9	1	3 Hours
Heavy Club	10	1	3 hours
Tool Hammer	14	2	1 day
Sledgehammer	16	2	1 day
Sap	13	2	4 hours
Riot Shield	15	4	2 hours
Entry Shield	18	11	10 hours
Archaic Melee Weapons			
Battle-axe	20	3	4 days
Broadaxe	18	2	3 days
Hand Axe	16	1	2 days
Shortsword	15	1	5 days
Bastard sword	18	4	1 week
Broadsword	23	3	1 week
Longsword	26	5	5 days
Rapier	28	4	1 week
Sabre	27	4	1 week
Cutlass	25	5	1 week
Parrying Dagger	19	1	5 days
Long Staff	14	2	1 day
Quarterstaff	13	1	1 day
Short Staff	12	1	1 day
Long Spear	16	2	1 day
Short Spear	14	2	1 day
Light Mace	25	3	6 days
Heavy Mace	28	4	6 days
Light Pick	30	5	5 days
Heavy Pick	34	8	5 days
Halberd	21	7	2 days

Table 21: Craft (Structural), Simple Melee Weapon Crafting

Weapon	Craft TN	Mat Cost	Time
Exotic Melee Weapons			
Weighted Chain	26	4	1 day
Whip Chain	28	5	1 day
Great Sword	32	5	2 weeks
Garrote	12	1	1 hour
Flail	26	5	3 days
Kama	21	3	2 days
Khepesh	22	11	1 week
Kukri	27	3	1 week
Maquahuitl	8	9	4 hours
Nunchaku	15	1	2 hours
Sai/Jitte	14	3	3 days
Three Section Staff	21	2	9 hours
Thrown weapons and Non-ballistic Ranged weapons			
Ballistic Knife	28	10	3 hours
Slingshot	9	1	15 minutes
Whip	15	3	2 days
Throwing Knives/Stars (4)	11	1	2 days
Giant Throwing Star	13	1	2 days
Throwing Axe	18	1	1 day
Bolas	15	3	6 hours
Javelin	22	1	1 day
Compound bow	25	3 per size	5 days
Recurve Bow	20	4 per size	4 days
Brick (5)	2	1	1 CP
Boomerang	18	1	1 hour

Table 22: Craft (Structural), Melee and Thrown Weapon Crafting

Personalized Weapons A personalized weapon is a weapon built from the ground up for a particular individual, based on the user's preference, size, and other specifications. A character may craft a personalized weapon for anyone at their request, but the user must be proficient in the weapon in order to gain the benefit. A personalized weapon grants a +4 to attack, a +1 to damage and the Combat Point cost for any action involving the weapon is reduced by 1 for the intended user. Anyone who is not the weapon's intended user uses the weapon as if it were a normal weapon. When crafting a personalized weapon, the TN for the weapon is increased by 10, the raw material WP cost is increased by 4× and the time is doubled. A personalized weapon must be named either by the intended user or by the crafter, if the intended user does not give a name.

Performing Upgrades A weaponsmith may perform his own upgrades to weapons, at half the cost of a normal upgrade. The TN to perform any melee weapon upgrade is 17 and it takes the normal amount of time to perform the upgrade.

Extra Upgrade Slots and Built-in Upgrades A weapon may be crafted with extra slots for melee weapon upgrades. This increases the TN by 5 per upgrade slot, the WP cost is doubled and the time increases by a day. A weapon may also be crafted with the upgrades already built in, taking up the slot that would normally take when upgrading it as normal. The upgrade costs the same amount as it would to normally upgrade but only takes half the time, and the TN to craft the weapon is +1 per upgrade.

Repairing Damaged Armor and Vehicles

A character can use Craft (Structural) to repair used armor and vehicles.

Repairing damage to a vehicle takes a full hour of work, a mechanical tool kit, a garage or some other suitable facility, and 5 WP of raw materials. Without the tool kit, a character takes a –6 penalty on their Craft check. At the end of the hour, make a Craft (Structural) check [TN20]. Success restores 2d6 HP. If damage remains, the character may continue to make repairs for as many hours as it takes to restore all of the vehicle's hit points, provided they have enough money for the raw materials.

Repairing damage to armor takes 30 minutes of work, a mechanical tool kit, and 20% of the armor's base cost in raw materials. Without the tool kit, a character takes a –6 penalty on their Craft check. At the end of the half hour, make a Craft (Structural) check [TN20]. Success restores 50% of the armor's full armor points. Success by 10 or more restores 75% of the armor's full armor points and success by 15 or more restores 100% of the armor's full armor points. If damage remains, the character may continue to make repairs for as many hours as it takes to restore all of the vehicle's hit points, provided they have enough money for the raw materials.

Special

A character without a construction tool kit takes a –6 penalty on Craft (Structural) checks.

Craft (Visual Art)

This skill allows a character to create paintings or drawings, take photographs, use a video camera, or in some other way create a work of visual art. When attempting to create a work of visual art, the character simply makes a Craft (Visual Art) check, the result of which determines the quality of the work. Unless the effort is particularly elaborate or the character must acquire an expensive piece of equipment, the basic components have a WP cost of 4.

Creating a work of visual art requires at least 12 Combat Points, but usually takes an hour, a day, or more, depending on the scope of the project.

Skill Check Result	Effort Achieved
0-9	Untalented Amateur
10-19	Talented Amateur
20-24	Professional
25-30	Expert
31+	Master

Table 23: Craft (Visual Art) Results

The character can also use Craft (Visual Art) to create false documents. The complexity of the document, the character's degree of familiarity with it, and whether the character needs to reproduce the signature or handwriting of a specific individual, provide modifiers to the Craft check.

The Craft (Visual Art) skill is also used to detect someone else's forgery. The result of the original Craft (Visual Art) check that created the document is opposed by a Craft check by the person who examines the document to check its authenticity. If the examiner's check result is equal to or higher than the original check, the document is determined to be fraudulent. The examiner gains bonuses or penalties on their check. A character can not try again since the forger isn't sure of the quality of the original forgery.

Document Type	Modifier	Time Taken
Simple (Business Card, Name Tag, Typed Letter)	+0	10 minutes
Moderate (Letterhead, Business Form)	–2	20 minutes
Complex (Stock Certificate, Driver's License)	–4	1 hour
Difficult (Passport)	–8	4 hours
Impossible (Military/Law Enforcement ID)	–15	1 day
Familiarity	**Modifier**	
Document includes specific insignia or signature	–4	
Forger is unfamiliar with document	–4	
Forger is slightly familiar with document	+0	
Forger is very familiar with document	+4	
Forger has experience in type of document	+6	
Forgery Check Modifier	**Modifier**	
Type of document unknown to examiner	–4	
Type of document somewhat known to examiner	–2	
Type of document well known to examiner	+0	
Examiner only casually reviews the document	–2	
Document is put through additional tests	+4	

Table 24: Craft (Visual Art), Forgery

Special

To forge documents and detect forgeries, one must be able to read and write the language in question.

A character can take 10 when making a Forgery check.

A character without a forgery kit takes a –6 penalty on Forgery checks to create a document, and a character without an authentication kit takes a –6 on Forgery checks to detect a forgery.

Craft (Writing)

This skill allows a character to create short stories, novels, scripts and screenplays, newspaper articles and columns, and similar works of writing. When creating a work of writing, the player simply makes a Craft (Writing) check, the result of which determines the quality of the work. The WP cost is negligible.

Creating a work of writing requires at least 1 hour, but usually takes a day, a week, or more, depending on the scope of the project.

Skill Check Result	Effort Achieved
0-9	Untalented Amateur
10-19	Talented Amateur
20-24	Professional
25-30	Expert
31+	Master

Table 25: Craft (Writing), Results

This skill also allows a knowledgeable character to create reference books, that can be used by other characters to bolster their knowledge in subjects. The player selects a single Knowledge skill that they have ranks in, makes a Craft (Writing) check, and spends 1 week writing the reference book. The reference book grants a bonus to the selected Knowledge skill, equal to 1/10th of their total modifier of the knowledge skill selected, rounded down. The result of the Craft (Writing) check determines the amount of useful knowledge contained in the book, and thus, how many times a single character can use the book. Only characters that have a Knowledge skill modifier of 5 or less than the creator of the of the reference manual, at the time of creation, can use the specific reference manual.

Skill Check Result	Number of Uses
0-9	1
10-19	3
20-24	6
25-30	10
31+	15

Table 26: Craft (Writing), Reference Book Creation

Demolitions (INT) Trained Only

The character is trained in arming, planting, and preparing an explosive device for detonation.

Check

Setting a simple explosive to blow up at a certain spot doesn't require a check, but connecting and setting a detonator does. Also, placing an explosive for maximum effect against a structure calls for a check, as does disarming an explosive device.

Set Detonator

Most explosives require a detonator to go off. Connecting a detonator to an explosive requires a Demolitions check [TN10]. Failure means that the explosive fails to go off as planned. Failure by 10 or more means the explosive goes off as the detonator is being installed.

A character can make an explosive difficult to disarm. To do so, the character chooses the disarm TN before making their check to set the detonator (it must be higher than 10). The character's TN to set the detonator is equal to the disarm TN.

Create Pre-made Explosives

This skill also includes creating pre-made explosives from raw explosive materials and detonators. The character chooses the type of detonators they wish to use for the explosive, as well as any pre-set weights, or timing required. A character may have an explosive with more than one kind of detonator, but each detonator after the 1st one increases the Demolitions Check by +6. The character then selects the type of explosive they wish to use. The TN is [Explosive TN + Detonator Modifier]. Failure means the supplies are wasted. Failure by 10 or more means the explosive goes off immediately.

Place Explosive Device

Carefully placing an explosive against a fixed structure (a stationary, unattended inanimate object) can maximize the damage dealt by exploiting vulnerabilities in the structure's construction. The GM makes the check (so that the character doesn't know exactly how well they have done). On a result of 15 or higher, the explosive deals double damage to the structure against which it is placed. On a result of 25 or higher, it deals triple damage to the structure. In all cases, it deals normal damage to all other targets within its blast radius.

Disarm Explosive Device

Disarming an explosive that has been set to go off requires a Demolitions check. The check is usually TN10, unless the person who set the detonator chose a higher disarm TN. If the character fails the check, they do not disarm the explosive. If the character fails by more than 5, the explosive goes off.

Special

A character can take 10 when using the Demolitions skill.

A character without a demolitions kit takes a –6 penalty on Demolitions checks.

Try again?

If time permits and the explosive has not gone off, yes.

Time

Setting a detonator costs 10 Combat Points. Placing an explosive device takes 1 minute, possibly longer depending on the scope of the job.

Disable Device (INT)

The character is skilled at disarming security devices and opening locks. In addition, this skill lets you sabotage simple mechanical devices, such as locks, and firearms.

Open Lock

A character can pick conventional locks, finesse combination locks, and bypass electronic locks. The character must have a lockpicking kit (for a mechanical lock) or an electronics kit (for an electronic lock). The TN depends on the quality of the lock.

Cheap Locks [TN20] Examples of cheap locks include briefcase locks, combination locks, and weak padlocks. When these devices fail closed, they usually can be triggered three or four times before a lockout.

Average Locks [TN25] Examples of average locks include home deadbolt locks, standard padlocks, keypad locks, and RFID locks. When these devices fail closed, they usually can be triggered twice or three times before a lockout.

High Quality Locks [TN30] Examples of high quality locks include business deadbolt locks, high quality padlocks, and encrypted card readers. When these devices fail closed, they usually can be triggered only once or twice before a lockout.

High Security Locks [TN35] Examples of high security locks include bank branch vaults, and biometric locks. When these devices fail closed, they usually can be triggered only once before a lockout.

Ultra-High Security Locks [TN50] Examples of ultra-high security locks include bank headquarters vault, or locks to a government high security area. When these devices fail closed, they usually can be triggered only once before a lockout.

Disable Security Device

A character can disable a security device, such as an electric fence, motion sensors, or security cameras. The character must be able to reach the actual device. If the device is monitored, the fact that the character attempted to disable it will probably be noticed. When disabling a monitored device, the character can prevent their tampering from being noticed. Doing so requires 10 minutes and an electrical kit, and increases the TN of the check by +5. Security devices also can fail open, where a character can try as many times as they'd like to get it open, or fail closed, where if a character fails the TN to disable the secuirty device by more than 5, the device will be locked out, will alert others of tampering, raise alarms, or otherwise be inaccessible.

Cheap Device [TN21] Examples of cheap security devices include home door alarms, barbed wire, and improvised alarms such as noisemakers or tripwires. When these devices fail closed, they usually can be triggered three or four times before a lockout.

Average Device [TN25] Examples of average security devices include store security cameras, razor wire, and simple motion detectors. When these devices fail closed, they usually can be triggered twice or three times before a lockout.

High Quality Devices [TN30] Examples of high security devices include infrared security cameras, advanced motion detectors, and electric fences. When these devices fail closed, they usually can be triggered only once or twice before a lockout.

High Security Devices [TN40] Examples of high security devices include alarms to a bank vault, land mines, and glass sensors. When these devices fail closed, they usually can be triggered only once before a lockout.

Ultra-high Security Devices [TN50] Examples of ultrahigh security devices include military motion detectors. When these devices fail closed, they usually can be triggered only once before a lockout.

Sabotage Device

A character can sabotage a mechanical or electrical device, such as a firearm, a piece of electrical equipment, or a tool. The skill check is made to see how well the sabotage attempt is made versus Perception checks, and the Disable Device check sets the TN for the repair check.

Special

A character can take 10 when using the Disable Device skill.

Try again?

If the character does not succeed on the first attempt, they can continue their attempt, taking another minute to attempt, so as long as they are not interrupted and the device is a fail open. They can make another attempt, adding the value of the first attempt to the current attempt. Devices that fail closed have a limited amount of attempts that be made, and exceeding these causes the device to be inaccessible. They can do this as long as they have time to perform the check.

Time

Opening a lock and disabling a device takes 1 minute per attempt. Sabotaging a device takes 1 minute per attempt.

Drive (DEX)

The character is trained how to drive in unusual circumstances, such as inclement weather, or during a dramatic situation, such as being chased, or attempting to reach a location quickly. A character does not need any ranks in drive in order to drive a civilian car, truck, or motorcycle. When driving, the character can attempt simple maneuvers or stunts.

Special

A character can take 10 when driving.

There is no penalty for operating a general-purpose motor vehicle. Other types of motor vehicles (heavy wheeled, powerboat, sailboat, ship, and tracked) require the corresponding Surface Vehicle Operation feat, or the character takes a –4 penalty on Drive checks.

Try Again?

Most driving checks have consequences for failure that make trying again impossible.

Time

A Drive check costs 6 Combat Points.

Knowledge (INT) Trained Only

This skill allows a character to be knowledgeable in a particular area of lore.

A character makes a Knowledge check to see if the character knows something. When trying to determine what Knowledge skill a particular question or field of expertise falls under, use a broad interpretation of the existing categories. When answering a question, the TN for answering within the character's field of study varies by the difficulty of the question asked.

Knowledge checks can also be used to create opportunities that would otherwise not exist, if the character was not knowledgeable in the area.

Question/Opportunity	TN
Very Easy	5
Easy	10
Basic	15
Difficult	20

Question/Opportunity	TN
Hard	25
Very Hard	30
Nearly Impossible	40

Table 27: Knowledge Check TN

The fourteen Knowledge categories and the topics each one encompasses are as follows:

- **Arcane Lore** Astrology, numerology, the occult, magic, the supernatural, and similar topics. Understand the behaviors of magic and supernatural beings, as well as informational tidbits on anything involving Magic, Psionics, and Incantations.
  - Arcane lore can give a synergy bonus to a Spellschool (Any), Psionic (Any), or Incantions (Any) skill. The character must select one specific skill to receive the bonus in.
- **Art** Fine arts and graphic arts, including art history and artistic techniques, as well as literary works. Antiques, modern art, photography, and performance art forms such as music and dance, among others.
  - Art can give a synergy bonus to a Perform (Any), or Craft (Visual art or Writing) skill. The character must select one specific skill to receive the bonus in.
- **Behavioral Sciences** Psychology, sociology, and criminology. Understand the personal thoughts and feelings of people, their behaviors due to multiple factors and explain the reasoning for their actions.
  - Behavioral sciences can give a synergy bonus to the Presence, or Speechcraft skill. The character must select one specific skill to receive the bonus in.
- **Business** Business procedures, investment strategies, and corporate structures. Bureaucratic procedures and how to navigate them. Understand business concepts, procedures, terms, and best practices, as well as all of the exploitative loopholes in business.
  - Business can give a synergy bonus to purchasing all items. The character receives a 5% discount, rounded up, on all New-in Box purchases of all items, for every synergy bonus they receive from this skill. This applies to any new in box item the character purchases, and applies after any other discounts are given.
- **Civics** Law, legislation, litigation, and legal rights and obligations. Political and governmental institutions and processes. Understand the basic workings of all types of governments and laws, how to navigate the legal system, and serve as a lawyer.
  - Civics can give a synergy bonus to the Speechcraft or Presence skill. The character must select one specific skill to receive the bonus in.
- **Earth and Life Sciences** Understand the workings of biological and geometrical sciences such as organic chemistry, pharmacology, genetics, geology, paleontology, biology, and botany.
  - Earth and life sciences can give a synergy bonus to the Craft (Pharmaceutical or Alchemy) or Treat Injury skill. The character must select one specific skill to receive the bonus in.
- **History** Events, personalities, and cultures of the past. Archaeology and antiquities. Know and recite historical events and their influence on the present.
  - History gives a synergy bonus to the Craft (Writing) skill.
- **Physical Sciences** Astronomy, chemistry, mathematics, physics, and engineering. Understand the workings of physical sciences and the behavior of the universe.
  - Physical sciences can give a synergy bonus to a Craft (Mechanical, Structural, Chemical, or Electronics) skill. The character must select one specific skill to receive the bonus in.
- **Popular Culture** Popular music and personalities, genres of films and books, urban legends, comics, science fiction, and gaming, among others. Recognize pop culture trends.
  - Popular Culture can give a synergy bonus to a Perform (Any), or Craft (Visual art or Writing) skill. The character must select one specific skill to receive the bonus in.
- **Streetwise** Street and urban culture, local underworld personalities and events. Identify commonly used weapons and signatures.
  - Streetwise can give a synergy bonus to the Disable Device or Drive skill. The character must select one specific skill to receive the bonus in.

- **Survival** Rural culture, farming, and wilderness survival knowledge. Identify commonly used weapons, edible plants, as well as knowledge for traps, snares, lures and general hunting and fishing knowledge.

  - Survival can give a synergy bonus to the Handle Animal or Ride skill. The character must select one specific skill to receive the bonus in.

- **Tactics** Techniques and strategies for disposing and maneuvering forces in combat. Know the historic and modern use of military tactics, identify weapons, and their intended uses and applications.

  - Tactics can give a synergy bonus to the Stealth or Demolitions skill. The character must select one specific skill to receive the bonus in.

- **Technology** Current developments in cutting-edge devices, as well as the background necessary to identify various technological devices. Understand the inter-workings of various technologies, their uses, protocols, and functions.

  - Technology gives a synergy bonus to the Technology Use skill.

- **Theology and Philosophy** The study of religious faith, practice, and experience as well as liberal arts, ethics, and philosophical concepts. Understand theological lore and logically achievable epistemological concepts.

  - Theology and Philosophy gives a synergy bonus to the Craft (Writing) skill.

Synergies

A Synergy is a representation of knowledge that can aid someone in completing a task. When a character puts ranks in any knowledge skill, they can choose the skill that they wish for the synergy to go to immediately.

For every +4 total skill modifier the character has in that knowledge skill, and they have at least 1 rank in that knowledge skill, they receive a +1 miscellaneous bonus to the selected skill.

Multiple Synergies

A character can have multiple synergies for a single skill. When this is the case, you simply add all of the synergy bonuses and add them to the selected skill.

Special

An untrained Knowledge check is simply an INT check. Without actual training, a character only knows common knowledge about a given subject.

A character can take 10 when making a Knowledge check.

Try Again?

No. The check represents what a character knows and thinking about a topic a second time doesn't let the character know something they never knew in the first place.

Time

A Knowledge check can be a reaction, but otherwise costs 12 Combat Points.

Linguistics (None) Trained Only

This skill allows a character to speak, read, and write a language. The Linguistics skill doesn't work like a standard skill.

- A character automatically knows how to read and write their native language; the character does not need ranks to do so.
- To read, write and speak a language costs 1 modifier.
- A character never makes Linguistics checks. A character either knows how to read and write a specific language or doesn't.
- A character may choose any language, modern or ancient. The GM may rule that a character can't learn a specific language due to the circumstances of the campaign.

Language Groups

There are thousands of languages to choose from when a character buys ranks in Linguistics. A few are listed here, sorted into their general language groups. A language's group doesn't matter when a character is buying ranks in Linguistics. This list is by no means exhaustive—there are many more language groups and most groups contain more languages than those listed here.

- **Greek**
- **Gaelic**
- **Chinese** Cantonese, Mandarin,
- **Germanic** English, German
- **Indic** Hindi, Punjabi
- **Pashto**
- **Japanese**
- **Korean**
- **Romantic** French, Italian, Latin*, Portuguese, Spanish
- **Semitic** Arabic, Hebrew
- **Slavic** Czech, Polish, Russian
- **Turkish**

*This is an ancient language. In the modern world it is spoken only by scholars, or in some cases by small populations in isolated corners of the world.

Perception (WIS)

This skill allows a character to notice fine details and alert them to danger. Perception covers all five senses, including sight, hearing, touch, taste, and smell.

Perception has a number of uses, the most common of which is an opposed check versus an opponent's Stealth check to notice the opponent and avoid being surprised. If you are successful, you notice the opponent and can react accordingly. If you fail, your opponent can take a variety of actions, including sneaking past you and attacking you.

Perception is also used to notice fine details in the environment. The TN to notice such details varies depending upon distance, the environment, and how noticeable the detail is. The following table gives a number of guidelines.

Perception	TN
Gunfire	See Text
Hear the sound of battle	–20
Notice the stench of rotting garbage	–15
Detect the smell of smoke	0
Hear the details of a conversation	0
Notice a visible creature	0
Determine if food is spoiled	5
Hear the sound of footsteps	10
Hear a gun being loaded and/or cocked	10
Hear the details of a whispered conversation	15
Find the average concealed door	15
Hear the sound of a key being turned in a lock	20
Notice a typical secret compartment or a simple trap	20
Notice a pickpocket	Opposed by Stealth
Notice a creature using Stealth	Opposed by Stealth

Table 28: Perception TN

Perception Modifiers	TN
Distance to the source, object, or creature	+3 per 10 feet beyond 100 feet
Through a closed door	+5
Through a wall	+10 per foot of thickness
Favorable conditions	–2
Unfavorable conditions	+5
Terrible conditions	+10
Creature making the check is distracted	+5
Creature making the check is asleep	+10
Creature or object is camouflaged	+15

Table 29: Perception TN Modifiers

Favorable and unfavorable conditions depend upon the sense being used to make the check. For example, bright light might decrease the TN of checks involving sight, while torchlight or moonlight might give a penalty. Background noise might reduce a TN involving hearing, while competing odors might penalize any TN involving scent.

Terrible conditions are like unfavorable conditions, but more extreme. For example, candlelight for TNs involving sight, a roaring engine for TNs involving hearing, and an overpowering stench covering the area for TNs involving scent.

Gunfire

Perception to hearing gunfire is handled differently, due to the extremely ranged nature of gunfire. The size of the damage dice is first taken and added to the TN. The number of damage dice is counted and added to the TN. Finally, any bonus damage that the caliber has is added to the TN. This sytem is also used for Plasma Arms, Electric Arms, and Laser Arms.

Caliber Damage Dice and Modifiers	TN
D2	–8
D3	–12
D4	–15
D6	–18
D8	–21
D10	–24
D12	–30
Damage Bonus	–1 per +1
Damge Dice Number	–3 per dice

Table 30: Perception TN Modifiers for Gunfire

Special

Creatures with the scent special quality have a +8 bonus on Perception checks made to detect a scent.

Try Again

Yes. You can try to sense something you missed the first time, so long as the stimulus is still present.

Time

Most Perception checks are reactive, made in response to observable stimulus. Intentionally searching for stimulus costs 6 Combat Points.

Perform (CHA)

The character is skilled in a form of entertainment. This skill encompasses several categories, each of them treated as a separate skill. These categories are identified and defined below.

The number of Perform categories is purposefully kept finite. When trying to determine what Perform skill a particular type of performance falls under, use a broad interpretation of the existing categories.

Check

The character is accomplished in some type of artistic expression and knows how to put on a performance. The character can impress audiences with their talent and skill. The quality of the character's performance depends on their check result.

The eight Perform categories and the qualities each one encompasses are as follows:

- **Act** The character is capable of performing drama, comedy, or action-oriented roles with some level of skill.
- **Dance** The character is capable of performing rhythmic and patterned bodily movements to music.
- **Keyboards** The character is a musician gifted with a talent for playing keyboard musical instruments, such as piano, organ, and synthesizer.
- **Percussion Instruments** The character is a musician gifted with a talent for playing percussion musical instruments, such as drums, cymbals, triangle, xylophone, and tambourine.
- **Sing** The character is a musician gifted with a talent for producing musical tones with their voice.
- **Stand-up** The character is capable of performing a stand-up routine before an audience.
- **Stringed Instruments** The character is a musician gifted with a talent for playing stringed musical instruments, such as banjo, guitar, harp, lute, sitar, and violin.
- **Wind Instruments** The character is a musician gifted with a talent for playing wind musical instruments, such as flute, bugle, trumpet, tuba, bagpipes, and trombone.

Skill Check Result	Effort Achieved	Audience Reaction
10	Amateur performance	Audience may appreciate your performance, but isn't impressed
15	Routine performance	Audience enjoys your performance, but it isn't exceptional
20	Great performance	Audience highly impressed
25	Memorable performance	Audience enthusiastic
30	Masterful performance	Audience awed

Table 31: Perform Check Results

Special

A character can take 10 when making a Perform check.

A character without an appropriate instrument automatically fails any Perform (Keyboard), Perform (Percussion), Perform (Stringed), or Perform (Wind) check they attempt. At the GM's discretion, impromptu instruments may be employed, but the performer must take a –6 penalty on the check because their equipment, although usable, is inappropriate for the skill.

Try Again?

Not for the same performance and audience.

Time

A Perform check usually requires at least several minutes to an hour or more.

Pilot (DEX) Trained Only

This skill allows a character to successfully pilot aircraft of various types.

Typical piloting tasks don't require checks. Checks are required during combat, for special maneuvers, in other extreme circumstances, or when the pilot wants to attempt something outside the normal parameters of the vehicle. When flying, the character can attempt simple maneuvers and stunts (actions in which the pilot attempts to do something complex very quickly or in a limited space). Each vehicle's description includes a maneuver modifier that applies to Pilot checks made by the operator of the vehicle.

Normal

A pilot can fly attack helicopters and military prop aircraft but can not use any of the weapons or countermeasures.

Special

A character can take 10 when making a Pilot check.

There is no penalty for operating a general-purpose fixed-wing aircraft. Other types of aircraft (heavy aircraft, attack helicopters, and attack planes) require the corresponding Aircraft Operation feat, or else the character takes a –4 penalty on Pilot checks.

Time

A Pilot check costs 6 Combat Points.

Try again?

Most Pilot checks have consequences for failure that make trying again impossible.

Presence (CHA)

The character is skilled at threatening and persuading others, and changing their appearance.

Disguise

You can also use Presence to disguise your appearance. Your Presence check result determines how good the disguise is, and it is opposed by others' Perception check results. If you don't draw any attention to yourself, others do not get to make Perception checks. If you come to the attention of people who are suspicious (such as a security guard who is observing people), it can be assumed that such observers are taking 10 on their Perception checks.

You get only one Presence check per use of the skill, even if several people are making Perception checks against it.

The Disguise check is made secretly, so that you can't be sure how good the result is.

The effectiveness of your disguise depends in part on how much you're attempting to change your appearance, and any behavior associated with it.

Disguise Check Modifiers	
Minor details only	+5
Disguised as different gender	–5
Disguised as different race	–10
Disguised as different age category	–5

Table 32: Presence, Disguise Modifiers

If you are impersonating a particular individual, those who know what that person looks like get a bonus on their Perception checks according to the table below. Furthermore, they are automatically considered to be suspicious of you, so opposed checks are always called for.

Familiarity	Bonus
Recognizes on sight	+6
Friends or associates	+8
Close friends	+10
Intimate	+15

Table 33: Presence, Viewer's Familiarity

Terrify

You can also use Presence to scare hostile targets in combat. The targets must be within 60' of the character.

The TN of this check is equal to 10 + the target's level + the target's WIS modifier + Miscellaneous modifiers. This TN is per target, as multiple targets can have multiple TNs.

Terrify Modifiers	
PC's are Armed	+5
Target is Armed	–5
PC's possess visible authority of a higher power (police, FBI, CIA, crime family, etc.)	+10
Target possesses authority of a higher power	–10

Table 34: Presence, Terrify

If successful, all targets within range are considered Shaken for 1d6 rounds.

The effect ends immediately if the target is attacked. The character cannot take 10 on this check.

Intimidate

Finally, the Presence skill can be used to frighten your opponents or to get them to act in a way that benefits you. This skill includes displays of prowess.

You can use Presence to force an opponent to act friendly toward you for 1d6×10 minutes with a successful check.

The TN of this check is equal to 10 + the target's level + the target's WIS modifier + Miscellaneous modifiers.

Intimidation Modifiers	
PC's are Armed	+5
Target is Armed	–5
PC's possess visible authority of a higher power (police, FBI, CIA, crime family, etc.)	+10
Target possesses authority of a higher power	–10

Table 35: Presence, Intimidate

If successful, the opponent will

- Give you information you desire.
- Take actions that do not endanger it.
- Offer other limited assistance.

After the intimidate expires, the target treats you as unfriendly and may report you to local authorities. If you fail this check by 5 or more, the target attempts to deceive you or otherwise hinder your activities. The Speechcraft skill may also be used for intimidation.

Special

A character without a disguise kit takes a –6 penalty on Presence checks to disguise themselves.

Time

To influence a creature's attitude takes 1 minute of continuous interaction. To change an opponent's attitude by intimidating them requires 1 minute of conversation. Making a request of a creature takes 1 or more rounds of interaction, depending upon the complexity of the request. Disguising oneself requires 1d4×10 minutes of preparation. Terrifying takes 8 Combat Points.

Try again?

You may try to redo a failed disguise, but once others know that a disguise was attempted they'll be more suspicious. You can attempt to intimidate or terrify an opponent again, but each additional check increases the TN by +5. This increase resets after one hour has passed.

Ride (DEX)

The character is skilled at riding mounts, usually a horse, but possibly something more exotic, like an elephant or camel.

Typical riding actions don't require checks. You can saddle, mount, ride, and dismount from a mount without a problem. The following tasks do require checks. If you attempt to ride a creature that is ill suited as a mount, you take a –5 penalty on your Ride checks. In addition, attempting trick riding or commanding the animal to perform an unusual technique also requires a check.

Guide with Knees [TN5] The character can react instantly to guide their mount with their knees so that the character can use both hands in combat or to perform some other action. Make the check at the start of the character's round. If the character fails, they can only use one hand this round because the character needs to use the other to control their mount.

Stay in Saddle [TN5] The character can react instantly to try to avoid falling when their mount rears or bolts unexpectedly or when the character takes damage.

Fight while Mounted [TN20] While in combat, the character can attempt to control a mount that is not trained in combat riding. If the character succeeds they use only 6 Combat Points and the character can use their remaining Combat Points to do something else. If the character fails, they can do nothing else that round. If the character fails by more than 5, they lose control of the animal.

For animals trained in combat riding, the character does not need to make this check. Instead, the character can use 6 Combat Points to have the animal perform a trick (commonly, to attack). The character can use the rest of their Combat Points normally.

Cover [TN15] The character can react instantly to drop down and hang alongside their mount, using it as ½ cover. The character can't attack while using their mount as cover. If the character fails, they don't get the cover benefit.

Soft Fall [TN15] The character reacts instantly when they fall off a mount, such as when it is killed or when it falls, to try to avoid taking damage. If the character fails, they take 1d6 points of bludgeoning damage.

Leap [TN15] The character can get their mount to leap obstacles as part of its movement. Use the character's Ride modifier or the mount's Athletics modifier (whichever is lower) when the mount makes its Athletics check. The character makes a TN15 Ride check to stay on the mount when it leaps.

Fast Mount or Dismount [TN20]; armor penalty applies The character can mount or dismount by using 2 Combat Points. If the character fails the check mounting or dismounting costs 6 Combat Points. A character can't attempt a fast mount or dismount unless they can perform the mount or dismount by spending 6 Combat Points this round, should the check fail.

Special

If the character is riding bareback (Without a saddle), they take a –5 penalty on Ride checks.

A character can take 10 when making a Ride check.

Time

Ride costs 6 Combat Points, except when otherwise noted for the special tasks listed above.

Stealth (DEX)

The character is skilled at avoiding detection, allowing them to slip past foes or strike from an unseen position, and pick pockets, draw hidden weapons, and take a variety of actions without being noticed. This skill covers hiding and moving silently.

Movement

Your Stealth check is opposed by the Perception check of anyone who might notice you. You can move at 2 Combat Points per 5' and still use Stealth at no penalty. When moving at normal Combat Point cost, you take a –5 penalty. It is impossible to use Stealth while attacking. If people are observing you using any of their senses (typically sight) you can't use Stealth.

Pocketing an item

A Stealth check [TN10] lets you palm a coin-sized, unattended object. Performing a minor feat of legerdemain, such as making a coin disappear, is also TN10 unless an observer is determined to note where the item went.

When you use this skill under close observation, your skill check is opposed by the observer's Perception check. The observer's success doesn't prevent you from performing the action, just from doing it unnoticed.

Conceal

You can hide a small object (including a Medium or smaller weapon) on your body. Your Stealth check is opposed by the Perception check of anyone observing you or of anyone frisking you. In the latter case, the searcher gains a +4 bonus on the Perception check, since it is generally easier to find such an object than to hide it. Heavy or baggy clothing (such as an overcoat) grants you a +2 bonus on the check.

Drawing a hidden weapon is dependent on how it is holstered or sheathed, but doesn't provoke an AoO.

Pickpocket

If you try to take something from a creature, you must make a Stealth check [TN20]. The opponent makes a Perception check to detect the attempt, opposed by the Stealth check result you achieved when you tried to grab the item. An opponent who succeeds on this check notices the attempt, regardless of whether you got the item. You cannot use this skill to take an object from another creature during combat if the creature is aware of your presence.

You can use Presence to allow you to use Stealth. A successful Presence check can give you the momentary diversion you need to attempt a Stealth check while people are aware of you.

Time

Normally, you make a Stealth check to hide or move silently as part of movement, but the Combat Point cost to move is doubled. Using Stealth to hide or move silently immediately after a ranged attack costs 6 Combat Points. Any Stealth check to conceal, or take an object costs 5 Combat Points. However, you may perform this Stealth check for 2 Combat Points by taking a –10 penalty on the check.

Speechcraft (CHA)

The character is skilled at detecting falsehoods and true intentions, threaten and persuade others, solve arguments, and gather valuable information from people.

Lying

With a successful Speechcraft check, you can convince your opponent that what you are saying is true. Speechcraft checks to lie are modified depending upon the plausibility of the lie. The TN for lying is [TN20 + Modifiers].

Lie Modifier	
The target wants to believe you, and the lie is plausible to them	–5
The lie is believable	+0
The lie is unlikely	+5
The lie is far-fetched	+15
The lie is impossible	+25
The target is drunk or impaired	–5
You possess convincing proof	up to –10

Table 36: Speechcraft, Lie Modifiers

Secret message

You can use the Speechcraft skill to pass a hidden message to another character without others understanding your true meaning. This check is TN15 for simple messages and TN20 for complex messages. If you are successful, the target automatically understands you, assuming you are speaking in a language that it understands. If your check fails by 5 or more, you deliver the wrong message. Other creatures that hear the message can decipher the message by succeeding at an opposed Speechcraft check against your Speechcraft result.

Diplomacy

You can also use this skill to persuade others to agree with your arguments, to resolve differences, and to gather valuable information or rumors from people. This skill is also used to negotiate conflicts by using the proper etiquette and manners suitable to the problem.

You can change the initial attitudes of non-player characters with a successful check. The TN of this check depends on the creature's starting attitude toward you, adjusted by its CHA modifier.

Starting Attitude	Diplomacy TN
Hostile	30 + character's CHA modifier
Unfriendly	25 + character's CHA modifier
Indifferent	20
Friendly	15
Helpful	5
Diplomacy Modifiers	
Give simple advice or directions	–5
Give detailed advice	+0
Give simple aid	+0
Reveal an unimportant secret	+5
Give lengthy or complicated aid	+5
Give dangerous aid	+10
Reveal secret knowledge	+10 or more
Give aid that could result in punishment	+15 or more

Table 37: Speechcraft, Diplomacy TN and Modifiers

If you succeed, the character's attitude toward you is improved by one step. For every 5 by which your check result exceeds the TN, the character's attitude toward you increases by one additional step. A creature's attitude cannot be shifted more than two steps up in this way, although the GM can override this rule in some situations. If you fail the check by 4 or less, the character's attitude toward you is unchanged. If you fail by 5 or more, the character's attitude toward you is decreased by one step.

If a creature's attitude toward you is at least indifferent, you can make requests of the creature. This is an additional Speechcraft check, using the creature's current attitude to determine the base TN, with one of the following modifiers. Once a creature's attitude has shifted to helpful, the creature gives in to most requests without a check, unless the request is against its nature or puts it in serious peril. Some requests automatically fail if the request goes against the creature's values or its nature, subject to GM discretion.

Confuse

You can also use this skill to utterly puzzle all targets through the use of words and bearings. All hostile targets within 50' of the character, who have a have an INT score above 2, and are able to see, hear, and understand the character are affected. To confuse, the character makes a Speechcraft check [TN18]. If they succeed, the target can try to resist by making a Will Saving Throw [TN (10 + 1 for every 1 point the character succeeded over the Confuse TN]. If the targets fail, they are considered Confused for 1d6 rounds. The effect ends immediately if the target is attacked. The character cannot take 10 on this check.

Captivate

You can also use this skill to captivate targets through sheer force of personality, a winning smile, and fast talking. All targets within 50' of the character, who have a have an INT score above 2, and are able to see, hear, and understand the character are affected. To captivate, the character makes a Speechcraft check [TN14]. If they succeed, the target can try to resist by making a Will Saving Throw [TN (10 + 1 for every 1 point the character succeeded over the Captivate TN]. If the targets fail, they are considered Stunned,

and receive a -4 to all Perception checks for 1d3 rounds. The effect ends immediately if the target is attacked. The character cannot take 10 on this check.

Bolster

You can also use this skill to restore the morale of those who can hear you. All friendly targets within 50' of the character, who have a have an INT score above 2, and are able to see, hear, and understand the character are affected. To bolster, the character makes a Speechcraft check [TN18]. If they succeed, all friendly and neutral targets that are shaken, rattled, stunned, unnerved, dazed, frightened, or panicked return to normal. The character cannot take 10 on this check.

Intimidate

Finally, the Speechcraft skill can be used to frighten your opponents or to get them to act in a way that benefits you.

You can use Speechcraft to force an opponent to act friendly toward you for 1d6×10 minutes with a successful check.

The TN of this check is equal to 10 + the target's level + the target's WIS modifier + Miscellaneous modifiers.

Intimidation Modifiers	
PC's are Armed	+5
Target is Armed	–5
PC's possess visible authority of a higher power (police, FBI, CIA, crime family, etc.)	+10
Target possesses authority of a higher power	–10

Table 38: Speechcraft, Intimidate

If successful, the opponent will

- Give you information you desire.
- Take actions that do not endanger it.
- Offer other limited assistance.

After the intimidate expires, the target treats you as unfriendly and may report you to local authorities. If you fail this check by 5 or more, the target attempts to deceive you or otherwise hinder your activities. The Presence skill may also be used for intimidation.

Time

Attempting to deceive someone takes at least 1 round, but can possibly take longer if the lie is elaborate (as determined by the GM on a case-by-case basis). Delivering a secret message generally takes twice as long as the message would otherwise take to relay. To influence a creature's attitude takes 1 minute of continuous interaction. Making a request of a creature takes 1 or more rounds of interaction, depending upon the complexity of the request. Confusing, Captivating, and Bolstering targets takes 8 Combat Points.

Try again?

If you fail to deceive someone, any further checks made to deceive them are made at a –10 penalty and may be impossible (GM discretion). Secret messages can be relayed again if the first attempt fails. You cannot use Speechcraft to influence a given creature's attitude more than once in a 24 hour period. If a request is refused, the result does not change with additional checks, although other requests might be made. You can attempt to Intimidate, Confuse, or Captivate an opponent again, but each additional check increases the TN by 5.You can attempt to bolster again, but each additional check increases the TN by 2 This increase resets after one hour has passed.

Technology Use (INT)

Your character is skilled at using computers and technology to bypass security systems, destroy and create programs.

Most normal computer operations don't require a Technology Use check. However, searching an unfamiliar network for a particular file, writing computer programs, altering existing programs to perform differently (better or worse), and breaking through computer security are all relatively difficult and require skill checks. A character without a computer (either a notebook or desktop) cannot use Technology Use.

Accessing Devices

Accessing a computer or network without permission is known as hacking. When a character hacks, they attempt to invade a Site. a Site is a virtual location that contains one or more Devices, which may each contain Data, Software Modules, and Actions. A Site can be as small as a single computer or a motion-activated light, or as large as a corporate network connecting computers and digital storage devices all over the world—The important thing is that access to a Site connects the user to everything within it. Some Sites can be accessed via the internet; others are not connected to any outside network and can only be tapped into by a user who physically accesses a Device connected to the Site.

Every site is overseen by a system administrator—the person in charge of the site, and who maintains its security. Often, the system administrator is the only person with access to all of a site's functions and data. A site can have more than one system administrator; large sites have a system administrator on duty at all times. A character is the system administrator of their own devices.

When a character hacks into a site, the visit is called a session. Once a character stops accessing the site, the session is over. The character can go back to the site in the future; when they do, it is a new session. Several steps are required to hack into a site. All Sites have a Security rating and a Complexity rating, which describe how difficult they are to hack into and how lengthy a process it is.

Covering Tracks

This step is optional. By making a Technology Use check [TN20], a character can alter their identifying information. This imposes a –5 penalty on any attempt made to identify the character if their activity is detected.

Access the Site

There are two ways to do this: physically or remotely.

Physical Access A character gains access to a computer or other device connected to the site at close range. If the site being hacked is not connected to the internet, this is probably the only way a

character can access it. A variety of skill checks may be required depending on the methods used to gain access.

Remote Access Reaching a site over medium or long range requires two Technology Use checks. The first check [TN10] is needed to find the Site remotely. The second check has a TN determined by the Site's Security.

Locate What You're Looking For

Once a character has access to a site, they can begin attempting to access the contents of the individual devices that form the site. In a site that contains a desktop computer and a security camera, for instance, the character may try to access the footage data stored in the computer's digital storage device, or they might attempt to shut down the camera or point it at the wall. Time spent on these actions does not need to be contiguous–a character may begin searching for a device, spending three Combat Points out of the total 18 CP required, draw a pistol and fire it with the remainder of their CP for the round, and resume their access attempt on the following round.

Finding Data

To find the Device a character wants in an unfamiliar Site, the character makes a Technology Use check. The TN for this check is determined by the Security of the Site, and the time required is determined by the Access Range and the Site's Complexity. Finding public information does not require this task. A character does not have to repeat this task to attempt to access the contents of an already-found Device.

Defeat File Security

After finding what they're after, the character makes a Technology Use check to defeat any security present and gain control of the targeted Data, Software Module, or Action. The TN for this check is determined by the Security of the Site and the File Security of the specific Data, Software module, or Action they're targeting. The time required is determined by the Access Range and the Site's Complexity.

If the check is failed by 5 or more, the security system immediately alerts the administrator that there has been an unauthorized entry. An alerted administrator may attempt to identify the character or cut off the character's access to the system.

If the character exceeds the TN by 10 or more when attempting to defeat the data security of a Device, the character automatically gains access to all of that Device's contents with equal or lower File Security.

Use What You've Accessed

Once a character has found a Device in the network and defeated the security of some of its contents, they can make use of that access. Defeating the security of a desktop computer would allow the character to transfer files to or from its digital storage devices, for example, and accessing the lock of a computerized door would allow the character to lock or unlock it as they please.

Operate Remote Device If a Device has Actions that the character has gained access to, they can activate them without needing to make a Technology Use check. The time required depends on the unmodified Access Range.

Data Transfer If a Device has Storage that the character has gained access to, they can transfer files between that storage and storage attached to their own device. The time required to initialize the transfer depends on the unmodified Access Range. The time required for the transfer to complete, which does not require the character's active participation, depends on the size of the Data being transferred and the Access Range.

Degrade Programming A character can destroy or alter applications on a Device they have access to, making use of that Device or Software Module harder or impossible. The TN for the attempt depends on what the character tries to do. Crashing a Device or Software Module simply shuts it down. Its user may restart it without making a skill check (however, restarting takes 1 minute). Destroying programming makes the Device or Software Module unusable until the programming is repaired. Damaging programming imposes a -4 penalty on all Technology Use checks made with the Device or Software Module, and requires a Technology Use check equal to the TN to damage the programming to notice.

A character can degrade the programming of multiple devices or software modules at a single site; doing so adds a +2 to the TN for each additional target.

Fixing degraded programming requires 1 hour and a Technology Use check against a TN equal to the TN for degrading it +5.

Defend Security

If the character is the system administrator for a site (which may be as simple as being the owner of a notebook computer), they can defend the site against intruders. If the site alerts the character to an intruder, the character can attempt to cut off the intruder's access (end the intruder's session), regain control of hacked devices, or identify the intruder.

To cut off access, make an opposed Technology Use check against the intruder. If the character succeeds, the intruder's session is ended. The intruder might be able to defeat the character's security and access their site again, but the intruder will have to start the hacking process all over. The time required to attempt cutting off access is determined by the site complexity and access range.

One surefire way to prevent further access is to simply shut the site down. With a single computer, that's often no big deal- but on a large site with many computers, or computers controlling functions that can't be interrupted, it may be time-consuming or even impossible. Shutting a site down takes at least a number of rounds equal to the site complexity.

To identify the intruder, make an opposed Technology Use check against the intruder. If the character succeeds, they learn the Site from which the intruder is operating. If it is a single computer, the character learns the name of the computer's owner. Identifying the intruder requires 1 minute, and automatically fails if the intruder ends their session before that time has elapsed.

Write Program

A character can create a software module to help them perform hacking tasks. These modules take the same amount of storage and RAM as normal software modules, and provide the same bonus depending on their variety

The TN to write a Lite Hacking Module is 15, and the time required is 1 hour.

The TN to write a Standard Hacking Module is 20, and the time required is 2 hours.

The TN to write a Full-featured Hacking Module is 25, and the time required is 4 hours.

Using a Hacking Module increases the time taken for tasks by the base time from the access range multiplied by the RAM of all used modules.

Site Security	TN
Minimum	15
Average	20
Exceptional	30
Maximum	35
File Security	**TN**
None (Routine Functions, such as passcodes or payroll records)	–5
Standard (Passive Actions, such as cameras and locks)	+0
Secure (Active Functions, such as motion detectors and alarms)	+5
Critical (Vital Functions, such as resetting parameters)	+10

Access Range	Base Time	Data Transfer Rate
Close (Adjacent to device)	6 CP	5 Storage per round
Medium (Within 15 miles of the device)	12 CP	1 Storage per round
Long (Further than 15 miles from the device)	1 Minute	1 Storage per minute

Site Complexity	Time Multiplier
Single device	1x
Small security system	3x
Large office network	10x
Massive corporate network	30x

Program Degradation Scope	TN	Time
Crash Computer	19	1 minute
Destroy programming	23	10 minutes
Damage programming	35	10 minutes

Table 39: Technology Use, Systems TN and Time

Special

A character can take 10 when using the Technology Use skill.

Time

Technology Use checks take different amounts of time based on the task at hand, the complexity of the site, the range at which a site is accessed, and the use of any hacking modules. Please refer to the specific task and table: “Technology use, Systems TN and Time”, to calculate these.

Treat Injury (WIS)

The character knows how to use first aid kits to restore health, treat poison, and stabilize characters.

Long Term Care [TN20] With a first aid kit this check allows a patient to restore CHP, XHP, and Ability Points at an advanced rate, 3HP/3AP per character level, per full day of rest. A new check is required each day. You can tend to as many patients as you have ranks. The patient must spend all their time resting and the user must dedicate 30 minutes of care per day per patient.

Restore Hit Points [TN20] With a first aid kit you can restore 1d4+1 CHP or XHP per character level of the user, to a character. CHP is always restored first. This may be done only once per day per character. This costs 12 Combat Points.

Stop Bleeding [TN10] With a first aid kit or applicable supplies you can stop a character from bleeding. This removes 2 bleed dice. For every 4 points the character achieves beyond the TN, they heal an additional bleed dice. This costs 8 Combat Points.

Revive a Dazed, Stunned, or Unconscious Character [TN17] With a first aid kit you can remove the Dazed, Stunned, or Unconscious condition from a character. You can't revive a character that is at –1 or lower CHP without stabilizing them first. This costs 8 Combat Points.

Stabilize Dying Character [TN15] With a first aid kit you can tend to a dying character. The character stops losing HP. This costs 8 Combat Points. Unlike the other actions, this action cannot be performed without a first aid kit.

Surgery [TN25] With a surgery kit you can conduct field surgery, allowing you to realign broken bones, remove bullets or shrapnel, and stitch up grievous wounds. Surgery restores 1d6 CHP or XHP per 2 skill modifiers the character has in Treat Injury, heals all extremity damage, and removes all bleed damage. CHP is always restored first. Undergoing surgery causes fatigue for 24 hours, minus 2 hours for every point above the TN the surgeon achieves. Surgery requires 1d4 hours plus one hour for each point the character's CHP has fallen below 0.

Treat Poison [TN15] With a first aid kit, you make a check when a poisoned character makes a Fortitude Saving Throw against a poison's secondary effect. If you succeed, you remove the secondary effect from the posioned character immediately. In the case of multiple secondary effects, you remove the last one taken. This costs 8 Combat Points.

Try Again?

Yes for restoring HP, reviving Dazed, Stunned, or Unconscious characters, stabilizing dying characters, stop bleeding and surgery. No for all other uses of the skill.

Time

Treat Injury checks take different amounts of time based on the task at hand.

Chapter V

Feats

Feats are a representation of training, subset of skills, or natural talents that a player can acquire through study, practice, or luck. Below is the structure for feats.

Feat Name

Prerequisites A minimum ability score, another feat or feats, a minimum BAB, and/or the minimum ranks in a skill that a character must have to acquire this feat. This entry is absent if a feat has no prerequisites. A character can take a feat at the same level at which they gain all the prerequisites. A character can't use a feat if the character has lost a prerequisite.

Benefit What the feat enables a character to do.

Normal What a character who does not have this feat is limited to or restricted from doing. If there is no particular drawback to not possessing the feat, this entry is absent.

Special Additional facts about the feat.

Tutoring

This variant rule introduces the ability for a character with proficiency to teach a character without the very basics of using the specified weapon or armor, thereby mitigating some of the penalties that come with not having the necessary proficiency. Listed is how long it takes to tutor a character and the bonuses they provide to the character who is being tutored.

Archery And Crossbow Feats

Archery Specialist

Prerequisites Archaic Weapon Proficiency (Bows)

Benefit When firing a bow, crossbow, slingshot, or speargun the Combat Point cost is 2 less.

Archery Master

Prerequisites Archaic Weapons Proficiency (Bows), Archery Specialist

Benefit Reloading a crossbow, bow, slingshot or speargun costs 0 Combat Points.

Double Bowman

Prerequisites Archaic Weapon Proficiency (Bows)

Benefit When already making an attack with a bow, the character may fire a second arrow at the same target with a −4 penalty to attack. If the attack is successful, it deals +2 damage die to that target .

Armor Feats

Heavy Armor Proficiency

Benefit When the character wears heavy armor, they can add the armor's equipment bonus to their DEF, and the armor's skill penalty only applies to the following skills: Acrobatics, Athletics, and Stealth.

Normal A character who wears armor with which they are not proficient only receives the Damage Reduction bonus and suffers the armor's skill penalty on the listed skill checks.

Tutoring

Time 1 day
Benefit Can gain up to +3 to Defense when wearing heavy armor

Light Armor Proficiency

Benefit When the character wears light armor, they can add the armor's equipment bonus to their DEF, and the armor's skill penalty only applies to the following skills: Acrobatics, Athletics, and Stealth.

Normal A character who wears armor with which they are not proficient only receives the Damage Reduction bonus, and suffers the armor's skill penalty on the listed skill checks.

Tutoring

Time 1 day
Benefit Can gain up to +1 to Defense when wearing light armor

Medium Armor Proficiency

Benefit When the character wears medium armor, they can add the armor's equipment bonus to their DEF, and the armor's skill penalty only applies to the following skills: Acrobatics, Athletics, and Stealth.

Normal A character who wears armor with which they are not proficient only receives the Damage Reduction bonus, and suffers the armor's skill penalty on the listed skill checks.

Tutoring

Time 1 day
Benefit Can gain up to +2 to Defense when wearing medium armor

Armor Mastery

Prerequisites Light Armor Proficiency, Medium Armor Proficiency, *or* Heavy Armor Proficiency, and Armor Optimization

Benefit The character reduces the Combat Points penalty by half rounded down, and receives a +1 to the maximum AGI limit for armor they are proficient in. They also receive a +5 to the AP score of the armor they are wearing. This bonus only applies while the character is wearing the armor and the character is proficient in that armor, and once he removes the armor, the armor loses this bonus.

Armor Optimization

Prerequisites Light Armor Proficiency, Medium Armor Proficiency, *or* Heavy Armor Proficiency

Benefit When the character wears their selected level of armor they are proficient in, they gain a +1 to the DEF equipment bonus, and reduce the armor penalty by 1.

Assault Rifle, Carbine Rifle, and SMG Feats

Rifle Specialist

Prerequisites Personal Firearms Proficiency

Benefit When firing an assault, battle, carbine, or target rifle, or sub-machine gun the Combat Point cost is 1 less, and character receives a +1 to all attacks.

Compact SMG Gunner

Prerequisites Personal Firearms Proficiency, Rifle Specialist

Benefit When firing a sub-machine gun with a folded folding or fixed folding stock or a pistol grip, the character does not take any penalties to their attack from the stock.

Normal A character without this feat has the range increment penalty doubled for all attacks with a folded folding stock or a pistol grip.

Rifle Expert

Prerequisites Personal Firearms Proficiency, Rifle Specialist, Rifle and SMG Reloader,

Benefit When firing an assault, battle, carbine, or target rifle, or sub-machine gun the Combat Point cost is 1 less, when clearing a jammed assault, battle, carbine, or target rifle, or sub-machine gun the Combat Point cost is 10 less, and when attempting to repair an assault, battle, carbine, or target rifle, or sub-machine gun the character receives a +6 bonus. Also, when a character with this feat reduces a creature to 0 CHP or less with an assault, battle, carbine, or target rifle, the character immediately gains 5 Combat Points that can be used for attacks or reloading. The Combat Points that are given must be used on attacks or reloading only, and only attacks with the same rifle that reduced the creature to 0 CHP must be used. A character can only receive these Combat Points once per turn. The character may not move any distance and if the bonus Combat Points are not used immediately after the attack, the character loses them. Also, a character receives +2 damage dice when performing an autofire, burst fire, sprayfire, or sweepfire attack with a sub-machine gun.

Special If a character selects the Rifle Expert Feat, they may not select the Rifle Ace Feat.

Rifle Ace

Prerequisites Personal Firearms Proficiency, Rifle Specialist, Rifle and SMG Reloader,

Benefit Twice per round when the character is wielding an assault, battle, carbine, or target rifle, or sub-machine gun, and is targeted by any ranged attack, the character may immediately make a single ranged attack targeted at the creature that originally attacked them using their wielded assault, battle, carbine, or target rifle, or sub-machine gun. This attack may be any standard attack, and may not use any called shot attack modifiers. This attack can not cost more than 8 Combat Points. Both of these attacks are resolved at the same time. Also, when readying an attack with an assault, battle, carbine, or target rifle, or sub-machine gun the Combat Point cost is 2 less.

Special If a character selects the Rifle Ace Feat, they may not select the Rifle Expert Feat.

Rifle Savant

Prerequisites Personal Firearms Proficiency, Rifle Specialist, Rifle and SMG Reloader, Rifle Ace **or** Rifle Expert

Benefit Once per round when the character is wielding an assault, battle, carbine, or target rifle, or sub-machine gun, and any character or creature is targeted by any ranged attack, the character may immediately make a single ranged attack targeted at the creature that originally made the attack using their wielded assault, battle, carbine, or target rifle, or sub-machine gun. This attack may be any standard attack, and may not use any called shot attack modifiers. This attack can not cost more than 8 Combat Points. Both of these attacks are resolved at the same time.

Special If a character has the Rifle Ace Feat, they may use the Rifle Savant three times per round, instead of once per round. If a character selects the Rifle Savant Feat, they may not select the Rifle Master Feat.

Rifle Master

Prerequisites Personal Firearms Proficiency, Rifle Specialist, Rifle and SMG Reloader, Rifle Ace **or** Rifle Expert

Benefit When wielding an assault, battle, carbine, or target rifle, or sub-machine gun the Critical Threat range for any of these weapons is 15-18.

Normal The Critical Threat range for all firearms is 16-18.

Special If a character selects the Rifle Master Feat, they may not select the Rifle Savant Feat.

Rifle and SMG Reloader

Prerequisites Personal Firearms Proficiency

Benefit Reloading any rifle or sub-machine gun with a magazine or full stripper clip costs 2 Combat Points. Reloading any rifle or sub-machine gun from loose rounds or refilling a magazine or stripper clip costs 1 Combat Points per round loaded. Refilling a magazine with a stripper clip costs 1 Combat Points per clip. Once per round, the character may reload a single round into a bolt action or sniper rifle for no Combat Points, ejecting the chambered round on the ground.

Close Combat Rifleman

Prerequisites Personal Firearms Proficiency, Rifle Specialist

Benefit When targeting an adjacent opponent with an assault, battle, or target rifle the character takes no ranged attack penalties, and when using a carbine as a melee weapon the Combat Point cost is reduced by 1.

Normal When using an assault, battle, or target rifle against an adjacent opponent, the character takes a –6 penalty on all ranged attacks.

Axe Feats

Axe Martial Arts

Prerequisites Archaic Weapon Proficiency (Axes)

Benefit When wielding a battle-axe, broadaxe, or hand axe, the character gains +1 damage die.

Axe Specialist

Prerequisites Archaic Weapon Proficiency (Axes), Axe Martial Arts

Benefit When wielding a battle-axe, broadaxe, or hand axe, the character gains an additional +1 damage die, and the character gains a +2 bonus to all attacks.

Axe Mastery

Prerequisites Archaic Weapon Proficiency (Axes), Axe Martial Arts, Axe Specialist

Benefit When wielding a battle-axe, broadaxe, or hand axe, the character gains an additional +1 damage die, and the character may treat any damage as bludgeoning as well, for the purpose of defeating a defender's armor.

Automatic Weapons Feats

Autofire Proficiency

Prerequisites Personal Firearms Proficiency

Benefit The character's Total Recoil Penalty is reduced by 4 when performing autofire attacks, by 1 when performing bump fire attacks, and by 3 when performing sweepfire and sprayfire attacks. This reduction is calculated after the Attack Recoil Penalty and the Caliber Recoil Penalty.

Autofire Mastery

Prerequisites Personal Firearm Proficiency, Autofire Proficiency, Burst Fire Proficiency

Benefit When performing autofire attacks, the Recoil Penalty is calculated as CRP–5. When performing sweeping fire attacks, the Recoil Penalty is calculated as CRP–8. When performing any burst fire attacks, the Recoil Penalty is calculated as CRP–1 for two round burst, and CRP–2 for all others. When performing sprayfire attacks, the Recoil Penalty is calculated as CRP–8.

Normal Sprayfire and sweeping fire have a recoil penalty of CRP–10, autofire has a recoil penalty of CRP–7, and burst fire has a recoil penalty of either CRP–2 or CRP–4.

Burst Fire Proficiency

Prerequisites Personal Firearms Proficiency, Autofire Proficiency

Benefit The character's Total Recoil Penalty is reduced by 2 when performing burst fire attacks. This reduction is calculated after the Attack Recoil Penalty and the Caliber Recoil Penalty.

Quickshot

Prerequisites Personal Firearms Proficiency, Autofire Proficiency

Benefit The character can treat an automatic-only weapon as if it has a semi-automatic rate of fire.

Normal Automatic weapons can only be used to make burstfire, suppressive fire, and autofire attacks.

Strafe

Prerequisites Personal Firearms Proficiency, Autofire Proficiency

Benefit When making an autofire attack, the character can choose an area of any four 5' squares as long as they are connected. The character gains a +2 attack bonus when performing sweepfire attacks.

Normal An autofire attack can only be used on a 10' by 10' area.

Special A character can only strafe a weapon with autofire, not bumpfire.

Black Powder Weapon Feats

Black Powder Firearm Proficiency

Benefit The character can fire any black powder firearm without penalty.

Normal Characters without this feat take a –4 penalty on attack rolls made with black powder firearms and can not reload them.

Tutoring
Time 1 day **Benefit** Can reload black powder firearms and attack penalty is reduced to –3

Special The Personal Firearm Proficiency Feat allows you to fire black powder weapons without penalty, but not to reload them.

Black Powder Firearm Specialist

Prerequisites Black Powder Firearm Proficiency

Benefit When firing or reloading a black powder weapon, the Combat Point cost is 1 less, and the error range when using a black powder weapon is 5% less.

Black Powder Firearm Expert

Prerequisites Black Powder Firearm Proficiency, Black Powder Firearm Specialist

Benefit When reloading a black powder weapon, the Combat Point cost is 2 less, the error range when using a black powder weapon is 10% less, and any black powder weapon that is loaded by the character will not explode if it fails the Error Range Check.

Combat Sword Feats

Sword Martial Arts

Prerequisites Archaic Weapon Proficiency (Combat Swords)

Benefit When wielding a shortsword, bastard sword, broadsword, longsword, great sword, khepesh, or maquahuitl the size class can be considered to be one less.

Special When calculating the POW damage bonus, use the original size of the weapon. Medium sized weapons can be used one handed.

Sword Specialist

Prerequisites Archaic Weapon Proficiency (Combat Swords), Sword Martial Arts

Benefit When wielding a shortsword, bastard sword, broadsword, longsword, great sword, khepesh, or maquahuitl the character gains +1 damage die, and when performing a thrust attack, the character takes no damage penalty, and gains a +2 damage bonus.

Sword Mastery

Prerequisites Archaic Weapon Proficiency (Combat Swords), Sword Martial Arts, Sword Specialist

Benefit When wielding a shortsword, bastard sword, broadsword, longsword, great sword, khepesh, or maquahuitl the Critical Threat range is 12-18 and any natural roll of a 15-18 is an automatic hit. Also, when attacking with any of the listed weapons, a character may exchange one die of damage to a die of bludgeoning damage.

Normal 16-18 are automatic hits without this feat.

Distance Rifle Feats

Anti-materiel Rifle Expert

Prerequisites Personal Firearms Proficiency, Distance Rifle Specialist, Recoil Management

Benefit When firing an anti-materiel rifle while using a magnified optic of 1.5x or greater, the Combat Point cost is 3 less, when clearing a jammed anti-materiel rifle, the Combat Point cost is 10 less, and when attempting to repair an anti-materiel rifle, the character gains a +6 bonus. Also, when firing an anti-materiel rifle while using a magnified optic of 1.5x or greater, the recoil penalty is reduced by ½. Also, for the purpose of feats, anti-materiel rifles are considered sniper rifles.

Controlled Shot

Prerequisites Personal Firearms Proficiency, Distance Rifle Specialist

Benefit Once per round, when making a single shot attack with a bolt action or sniper rifle, the character gains a +8 bonus to attack. This attack must be the only attack the character makes this round.

Special This feat can also be used with the bonuses from the Dead Aim, and Marksman Shot.

Distance Rifle Specialist

Prerequisites Personal Firearms Proficiency

Benefit When firing an anti-materiel, bolt action, designated marksman rifle, or sniper rifle, the Combat Point cost is 1 less and the character receives a +1 to all attacks. Also, when firing an anti-materiel, bolt action, designated marksman rifle, or sniper rifle while using a magnified optic of 1.5x or greater, a character does not receive a –4 penalty for their attack roll within the first range increment.

Normal Attacks within the first range increment with any magnified optic of 1.5x or greater grants a –4 penalty on the attack roll.

Designated Marksman Rifle Expert

Prerequisites Personal Firearms Proficiency, Distance Rifle Specialist, Leading Target

Benefit When firing a designated marksman rifle while using a magnified optic of 1.5x or greater, the Combat Point cost is 2 less. When clearing a jammed designated marksman rifle the Combat Point cost is 9 less, and when attempting to repair a designated marksman rifle the character receives a +6 bonus. Also, when a character with this feat reduces a creature to 0 CHP or less with a designated marksman rifle while using a magnified optic of 1.5x or greater, the character does not have to spend any Combat Points to sight in a new target.

Leading Target

Prerequisites Personal Firearms Proficiency, Distance Rifle Specialist

Benefit When attacking with a bolt action rifle, anti-materiel rifle, or designated marksman rifle, a character may ignore the target's DEF bonuses due to movement.

Special All other defense bonuses due to armor, Agility, and size still apply unless otherwise noted.

Recoil Management

Prerequisites Personal Firearms Proficiency, Distance Rifle Specialist

Benefit When firing an anti-materiel rifle or designated marksman rifle with a deployed bipod, a character may brace the rifle for an additional +2 bonus to all attacks.

Special Bracing costs no Combat Points.

Sniper Rifle Expert

Prerequisites Personal Firearms Proficiency, Distance Rifle Specialist

Benefit When firing a bolt action or sniper rifle while using a magnified optic of 1.5x or greater, the Combat Point cost is reduced by 4. When attempting to repair a bolt action or sniper rifle, the character receives a +6 bonus. Also, a character with this feat can increase their range increment by 100' when using a bolt action or sniper rifle with a magnified optic of 1.5x or greater. This change is after any equipment, racial abilities, or feats that increase or decrease range.

Explosive Weapons Feats

Explosive Weapons Specialist

Prerequisites Personal Firearms Proficiency, Explosive Weapons Proficiency

Benefit When firing a grenade launcher, rocket launcher, or mortar the Combat Point cost is 1 less.

Explosive Weapons Expert

Prerequisites Personal Firearms Proficiency, Explosive Weapons Proficiency, Explosive Weapon Specialist

Benefit When firing a grenade launcher, rocket launcher, or mortar, the Combat Point cost is 1 less. Reloading a grenade launcher or rocket launcher with a filled box magazine costs 2 Combat Points. Reloading a grenade launcher or rocket launcher that uses linked ammunition with a new link costs 3 Combat Points. Reloading a grenade launcher or rocket launcher from loose rounds, or refilling a box magazine costs 1 Combat Points per round loaded.

Fencing Sword Feats

Fencing Martial Arts

Prerequisites Archaic Weapon Proficiency (Fencing Swords)

Benefit When wielding a sabre, cutlass, rapier, parrying dagger, sai, or jitte, the character receives a +2 bonus against all Disarm attempts to disarm the wielder and a +1 bonus against all attacks against their weapon. The character also gains a +2 attack bonus to all called shot attacks against arms and legs made when attacking with a sabre, cutlass, rapier, or parrying dagger and the Critical Threat range for any of these weapons is 13-18.

Normal The Critical Threat range for a sabre, cutlass, rapier, or parrying dagger is 14-18.

Fencing Specialist

Prerequisites Archaic Weapon Proficiency (Fencing Swords), Fencing Martial Arts

Benefit When wielding a sabre, cutlass, rapier, parrying dagger, sai, or jitte, the character receives a +4 bonus to all Disarm attempts and a +4 bonus to all attacks against their weapon. The character can also increase the Combat Point cost of an attack with made with a sabre, cutlass, rapier or parrying dagger by 2 Combat Points and make a touch attack with the weapon.

Normal Fencing swords can only make normal attacks.

Fencing Mastery

Prerequisites Archaic Weapon Proficiency (Fencing Swords), Fencing Martial Arts, Fencing Specialist

Benefit When wielding a sabre, cutlass, rapier, parrying dagger, sai, or jitte, the Critical Threat range for the selected weapon is 12-18, and any natural roll of a 15-18 is an automatic hit. The character can also make a touch attack with the chosen weapon for no additional Combat Points.

Normal 16-18 are automatic hits without this feat.

Flexible Weapon Feats

Flexible Weapon Martial Arts

Prerequisites Archaic Weapon Proficiency (Flexible Weapons)

Benefit When wielding a bullwhip, weighted chain, chain whip, nunchaku, or three-section staff, the character gains an additional 5 feet of reach with the weapon, receives a +2 attack bonus to all Trip attempts, and when attempting to Disarm their target gains no benefit from holding a weapon in two hands.

Flexible Weapon Specialist

Prerequisites Archaic Weapon Proficiency (Flexible Weapons), Flexible Weapon Martial Arts

Benefit When wielding a bullwhip, weighted chain, chain whip, nunchaku, or three-section staff, the character may attack from a square other than their own. The character chooses a square within their weapon's reach and then guides the attack as if they were standing in that targeted square, facing the same direction, using any bonuses or penalties that may be removed or added due to the new location. The total distance from the character to this square to their target cannot exceed the weapon's reach.

Flexible Weapon Mastery

Prerequisites Archaic Weapon Proficiency (Flexible Weapons), Flexible Weapon Martial Arts, Flexible Weapon Specialist

Benefit When wielding a bullwhip, weighted chain, chain whip, nunchaku, or three-section staff, the Critical Threat Range is 12-18 and any natural roll of 15-18 is an automatic hit. Additionally, if a character successfully disarms a target using one of these weapons they may cause the disarmed object to fall anywhere within their weapon's reach instead of at the target's feet, and the penalty for attacking into the flank or rear area with these weapons is reduced by 5.

General Combat Feats

Adrenaline Rush

Prerequisites Toughness, CON 13

Benefit Once per hour, the character may gain extra CHP equal to their CON score / 2 for 5 rounds.

Special When the effect ends, and the character would be dying if the hit points were removed, the character instead drops to 0 CHP, in stabilized condition.

Blind Sense

Benefit In melee combat, every time the character misses because of concealment, the character can re-roll the miss chance roll once to see if they actually hit. The character takes only ½ the usual penalties for being unable to see. Darkness does not increase the character's Combat Point cost to move.

Danger Sense

Prerequisites Improved Initiative

Benefit Before combat starts, the character may roll their Initiative check twice and take the best result. The character must decide to reroll before the first round starts.

Dodge

Prerequisites AGI +1

Benefit During the character's action, the character can designate up to 3 opponents and receives a +3 dodge bonus to DEF against any subsequent attacks from those opponents. The character can select a new 3 opponents on their turn.

Special A condition that makes the character lose their AGI bonus to defense also makes the character lose dodge bonuses.

Combat Awareness

Benefit The character can spend 1 Combat Point to gain a +1d2 Defense bonus. The character can not spend more Combat Points than their Character Level + 2. The bonus to the character's defense is a dodge bonus.

Special A condition that makes the character lose their AGI bonus to defense also makes the character lose dodge bonuses.

Evasion

Prerequisites AGI +1

Benefit When making a Reflex Saving Throw, the character takes ¼ damage with a successful Saving Throw. This feat may only be used when wearing no armor, light armor, or medium armor.

Normal Successful Reflex Saving Throws reduce damage by ½.

Improved Initiative

Benefit The character gains a +3 circumstance bonus on Initiative checks.

Mobility

Prerequisites AGI +1, Dodge

Benefit The character no longer provokes AoO when moving out of a threatened square.

Normal Characters provoke AoO when moving out of a threatened square.

Quick Draw Attack

Prerequisites Tactical Draw (selected weapon), Proficient with weapon

Benefit A character may draw a model of weapon from a holster or sheath and immediately make a single attack for 4 Combat Points. The weapon used must be the same model that the character has a Tactical Draw feat for. This may only be done twice per turn.

Special Any feats or equipment that reduce the Combat Point cost for a single attack or for drawing a weapon also reduce the Combat Point cost for this attack. The weapon must be in a holster or a sheath.

Second Wind

Prerequisites Toughness

Benefit Once per hour, the character can restore a number of XHP equal to his CON score.

Tactical Draw

Prerequisites Proficient with weapon

Benefit Choose a specific model of weapon. The character can draw that model of weapon from a holster or sheath for 1 Combat Points and from Waistband carry for 3 Combat Points, and holster it for 1 Combat Points.

Normal A character can draw a weapon from a holster or sheath for 3 Combat Points and from Waistband carry for 6 Combat Points, and holster a weapon for 4 Combat Points.

Special This feat may be taken multiple times. Each time it is taken, it applies to a different weapon model. Weapons that are of similar build, such as full-sized 1911s and revolvers of similar caliber and capacity, may interchange this feat at the discretion of the GM.

Toughness

Benefit The character gains +4 XHP and +2 CHP.

Special A character may take this feat multiple times. Each time the character takes this feat they receive the same bonuses.

Handgun Feats

Handgun Specialist

Prerequisites Personal Firearms Proficiency

Benefit When firing a holdout, backup, full-size, or target handgun or a machine pistol, the Combat Point cost is 1 less, and the character gains a +1 attack bonus to all attacks.

Machine Pistoleer

Prerequisites Personal Firearms Proficiency, Handgun Specialist

Benefit Once per turn, the character can perform a burst fire, sprayfire or sweepfire attack with a handgun or a machine pistol with full auto or burst fire firing modes for half their normal Combat Point cost, rounded up.

Pistol Expert

Prerequisites Personal Firearms Proficiency, Handgun Specialist, Handgun Reloader, Skilled Pistol Magazine User

Benefit When firing a holdout, backup, full-size, or target handgun that uses magazines or has an internal magazine, or machine pistol, the Combat Point cost is 2 less. When clearing a jammed holdout, backup, full-size, or target handgun that uses magazines, or machine pistol, the Combat Point cost is 9 less. When attempting to repair a holdout, backup, full-size, or target handgun that uses magazines, or a machine pistol, the character receives a +6 bonus. Also, a character receives +1 damage dice when performing a double tap attack with any semi-automatic holdout, backup, full-size, or target handgun that uses magazines. Also, a character receives +2 damage dice when performing an autofire, burst fire, sprayfire, or sweepfire attack with a machine pistol.

Revolver Expert

Prerequisites Personal Firearms Proficiency, Handgun Specialist, Handgun Reloader, Skilled Speedloader User

Benefit When firing a holdout, backup, full-size, or target handgun that has a cylinder the Combat Point cost is reduced by 3. When attempting a potshot attack with a holdout, backup, full-size, or target handgun that has a cylinder the penalty is lowered to a –4, and when attempting to repair a holdout, backup, full-size, or target handgun that has a cylinder the character receives a +6 bonus. Also, when a character with this feat reduces a creature to 0 CHP or less with a holdout, backup, full-size, or target handgun that has a cylinder, the character immediately reloads the handgun that they were using against that creature, to full capacity, for free. This reload can be with any rounds the character has on their person, regardless of their location, as long as they are compatible with the handgun. This can be done only once per turn.

Skilled Pistol Magazine User

Prerequisites Personal Firearms Proficiency, Handgun Reloader, Handgun Specialist

Benefit Once per turn a character can reload a holdout, backup, full-size, or target pistol with a magazine for no Combat Points.

Skilled Speedloader User

Prerequisites Personal Firearms Proficiency, Handgun Reloader, Handgun Specialist

Benefit Once per turn a character can reload a holdout, backup, full-size, or target handgun that has a cylinder with a speedloader for no Combat Points.

Handgun Reloader

Prerequisites Personal Firearms Proficiency

Benefit Reloading any handgun or machine pistol with a magazine or speedloader costs 2 Combat Points. Reloading any handgun from loose rounds or refilling a magazine or speedloader costs 1 Combat Points per round loaded.

Heavy Melee Weapon Feats

Heavy Melee Weapon Martial Arts

Prerequisites Archaic Weapon Proficiency (Mace) *or* Archaic Weapon Proficiency (Pick)

Benefit When wielding a light mace, flail, heavy mace, kama, light pick, or heavy pick, the character receives +1 damage die of bludgeoning damage.

Heavy Melee Weapon Specialist

Prerequisites Archaic Weapon Proficiency (Mace) *or* Archaic Weapons Proficiency (Pick), Heavy Melee Weapon Martial Arts

Benefit When wielding a light mace, flail, heavy mace, kama, light pick, or heavy pick, the character receives +1 damage die when Sundering an object, and when attacking a target with armor that defends against the damage given, the AP loss for armor is doubled.

Heavy Melee Weapon Mastery

Prerequisites Archaic Weapon Proficiency (Mace) *or* Archaic Weapon Proficiency (Pick), Heavy Melee Weapon Martial Arts, Heavy Melee Weapon Specialist

Benefit When wielding a light mace, flail, heavy mace, kama, light pick, or heavy pick, the Critical Threat range for the selected weapon is 12-18, and any natural roll of a 15-18 is an automatic hit. Also, the selected weapon ignores up to 3 points of Damage Reduction.

Normal 16-18 are automatic hits without this feat.

Machine Gun Feats

Close Combat Machine Gunner

Prerequisites Personal Firearms Proficiency, Machine Gun Specialist

Benefit When targeting an adjacent opponent with an LMG or GPMG the character takes no ranged attack penalties.

Normal When using a machine gun against an adjacent opponent, the character takes a –6 penalty on all ranged attacks.

General Purpose Machine Gunner

Prerequisites Personal Firearm Proficiency, Machine Gun Specialist

Benefit The character can fire any GPMG without penalty.

Normal Characters without this feat take a –4 penalty to attacks made with GPMGs.

Machine Gun Specialist

Prerequisites Personal Firearms Proficiency

Benefit When firing or reloading a LMG or GPMG the Combat Point cost is 1 less and the Recoil Penalty is reduced by 2, and when firing a LMG or GPMG, the Reflex Saving Throw TN for Autofire is increased to [TN20].

Machine Gun Expert

Prerequisites Personal Firearms Proficiency, Machine Gun Specialist, General Purpose Machine Gunner, Close Combat Machine Gunner, Machine Gun Reloader

Benefit When clearing a jammed LMG or GPMG the Combat Point cost is 7 less, when attempting to repair a LMG or GPMG the character receives a +2 bonus. Also, when firing a LMG or GPMG, the character can immediately perform a suppressive fire attack without having made an autofire attack prior to the suppressive fire attack. The character spends the same Combat Point cost that it would take to start an autofire attack, but the attack is instead a suppressive fire attack, for the first attack. All subsequent attacks are normal suppressive fire attacks, and follow the same rules as suppressive fire. Lastly, the character can shift the area suppressed at 5' per 1 Combat Point.

Special If a character selects the Machine Gun Expert Feat, they may not select the Machine Gun Ace Feat.

Machine Gun Ace

Prerequisites Personal Firearms Proficiency, Machine Gun Specialist, General Purpose Machine Gunner, Close Combat Machine Gunner, Machine Gun Reloader

Benefit Once per round when firing a LMG or GPMG and making an attack that targets an area, the character may choose one creature in that area. The chosen creature doubles the cost to move in the the attack's area for one round. Additionally, when making a sweeping fire attack, the character may choose to change it's area of effect in one of the following ways:

- Make a line starting at the character and extending to the maximum range of the sweeping fire attack. Creatures in this line are excluded from the attack's area.

- Change the area of effect to a burst centered on the character instead of a cone, but reduce it's maximum range by half.

Special If a character selects the Machine Gun Ace Feat, they may not select the Machine Gun Expert Feat.

Machine Gun Savant

Prerequisites Personal Firearms Proficiency, Machine Gun Specialist, Machine Gun Reloader, General Purpose Machine Gunner, Close Combat Machine Gunner **and** Machine Gun Ace **or** Machine Gun Expert

Benefit When firing a LMG or GPMG and making a sweeping fire attack, the maximum range is 60'. When firing a LMG or GPMG and making an autofire attack, it affects a 15' x 15' area.

Normal Sweeping Fire has a maximum range of 40'. Autofire attacks affect a 10' x 10' area.

Special If a character selects the Machine Gun Savant Feat, they may not select the Machine Gun Master Feat.

Machine Gun Master

Prerequisites Personal Firearms Proficiency, Machine Gun Specialist, Machine Gun Reloader, General Purpose Machine Gunner, Close Combat Machine Gunner **and** Machine Gun Ace **or** Machine Gun Expert

Benefit When wielding an a LMG or GPMG the Critical Threat range for any of these weapons is 15-18.

Normal The Critical Threat range for all firearms is 16-18.

Special If a character selects the Machine Gun Master Feat, they may not select the Machine Gun Savant Feat.

Machine Gun Reloader

Prerequisites Personal Firearms Proficiency, Machine Gun Specialist

Benefit Reloading an LMG with a magazine costs 2 Combat Points. Reloading an LMG or GPMG that uses linked ammunition with a new link costs 3 Combat Points. Refilling a magazine costs 1 Combat Points per round loaded. Refilling a magazine with a stripper clip costs 2 Combat Points per clip.

Melee Combat Feats

Cleave

Prerequisites Power Attack

Benefit Once per round, if the character reduces a creature to 0 CHP or less, the character may immediately make a melee attack against another creature within reach for no Combat Points. The character may move up to 10' before making this extra attack, but the character must have enough Combat Points to move this distance, and the character must move directly towards another enemy creature to take this attack. The extra attack is with the same weapon as the attack that dropped the previous creature.

Combat Intuition

Prerequisites Archaic Weapon Proficiency (any), Combat Martial Arts, or Exotic Melee Weapons Proficiency

Benefit After making a successful melee attack against an enemy in melee combat, the character gains a +3 melee attack bonus for subsequent attacks against that enemy during the current round.

Special This bonus only applies to the last enemy the character attacked successfully.

Elusive Target

Prerequisites AGI +2, Evasive Martial Arts

Benefit When fighting an opponent or multiple opponents in melee, other opponents attempting to target the character with ranged attacks take a –4 penalty. This penalty is in addition to the normal –4 penalty for firing into melee, making the penalty to target to character –8.

Special An opponent with the Precise Shot feat has the penalty lessened to –6 when targeting the character.

Evasive Martial Arts

Benefit The character gains a +2 dodge bonus to DEF against melee attacks.

Special A condition that makes the character lose their AGI bonus to defense also makes the character lose Dodge bonuses.

Favored Type

Choose Bludgeoning, Piercing, or Slashing damage.

Benefit The character gains a +3 damage bonus on all damage rolls they make using a weapon with the chosen type of damage.

Special A character may take this feat multiple times. Each time the character takes the feat, they select a different type of damage.

Forgiving Damage

Choose Piercing, Slashing, Bludgeoning, or Nonlethal damage.

Benefit When attacked with the selected damage, the character gains a +2 Dodge bonus to DEF against all attacks with this damage.

Special A character may take this feat multiple times. Each time the character takes the feat, they select a different type of damage. A condition that makes the character lose their AGI bonus to defense also makes the character lose Dodge bonuses.

Forceful Strike

Benefit When the character calculates melee damage or uses a small or smaller melee weapon two-handed, they add 1½× their POW modifier to the damage. When wielding medium or larger melee weapon two-handed, they add 2× their POW modifier, and it results in at least a +2 damage bonus.

Normal Using a weapon two-handed only grants a 1½× POW modifier, and using a small or smaller melee weapon two-handed grants a 1× POW modifier.

Improved Disarm

Benefit The character does not provoke an AoO when the character attempts to Disarm an opponent, nor does the opponent get a chance to Disarm the character.

Improved Reflexive Martial Arts

Prerequisites Reflexive Martial Arts

Benefit In melee combat, if an opponent attacks and misses the character, the character may immediately make a free Disarm or Trip attack against them, at a –4 attack penalty. This attack does not provoke an AoO.

Power Attack

Benefit On the character's turn, before making any attacks, the character may choose to take a penalty on all melee attack rolls and add the same number multiplied by 2 as a bonus to all melee damage rolls. This number may not exceed the character's BAB. The penalty on attacks and bonus on damage applies until the character's next turn.

Reflexive Martial Arts

Benefit In melee combat if an opponent attacks and hits the character, the character may immediately make a free standard unarmed attack against them at a –4 penalty. This attack is taken after the character struck takes their damage. This attack does not provoke an AoO.

Sunder

Prerequisites FOC +1, Power Attack
Benefit When the character strikes an object held or carried by an opponent, such as a weapon, the character does not provoke an AoO. The character gains a +4 bonus on any attack roll made to attack an object held or carried by another character. The character deals double normal damage to objects, whether they are held or carried or not.
Normal A character without this feat incurs an AoO when they strike at an object held or carried by another character.

Ranged Combat Feats

Dead Aim

Prerequisites Far Shot
Benefit Before making a ranged attack, the character may spend 7 Combat Points to line up their shot. This grants the character a +2 circumstance bonus on their next attack roll. The attack must be a single shot attack. Any other attack besides a single shot does not gain the bonuses for this attack, and the character loses the benefit of aiming. If the character takes damage or is effected by a status effect before they attack, the character loses the benefit of aiming. All movement costs are doubled if the character uses the benefits of this feat, until they either forgo the bonus to attack, or perform any attack. The effect does not stack between rounds.

Double Tap Proficiency

Benefit The character's Total Recoil Penalty is reduced by 2 when performing double tap attacks. This reduction is calculated after the Attack Recoil Penalty and the Caliber Recoil Penalty.

Failure Drill Master

Prerequisites Double Tap Proficiency
Benefit Up to twice per round, when a character executes a successful double tap attack, they can make a single shot attack for 0 Combat Points. Normal penalties and bonuses apply for this attack. This attack takes an additional round of ammunition beyond the two rounds used for double tap, and can not be performed if the firearm does not have it to use. This attack must be taken before the character's turn ends.

Fanning Proficiency

Benefit The character's Total Recoil Penalty is reduced by 2 when performing fanning attacks. This reduction is calculated after the Attack Recoil Penalty and the Caliber Recoil Penalty.

Fanning Expert

Prerequisites Fanning Proficiency
Benefit When performing fanning attacks, the Recoil Penalty is calculated as CRP for two-round fan, and CRP–1 for three-round fan. The character may also make a single fanning attack for 0 Combat Point Cost per turn. This attack must be taken before the character's turn ends.

Far Shot

Benefit When the character uses a firearm, paintball marker, bow, or crossbow, its range increment increases by 1½, rounded up to the nearest 5'.
Special For the purpose of weapons with telescopic sights, a character can choose to use the original range increment for the purpose of avoiding the 1st range increment penalty.

Marksman Shot

Prerequisites Far Shot, Dead Aim
Benefit The circumstance bonus from Dead Aim may be stacked each round the character spends aiming, up to a maximum of five rounds. Each round spent aiming beyond the first round also grants a +3 attack bonus instead of a +2.

Ballistic Specialization

Choose a specific caliber category (Eg: Light Rimless). For the purpose of this feat, all shell calibers are under a single category, all black powder calibers are under a single category, and all caseless calibers are under a single category.
Prerequisites Personal Firearms Proficiency **or** Black Powder Firearm Proficiency
Benefit When using the caliber, the CRP is multiplied by 0.75, rounded down. This reduction is calculated after any ammunition modifications that may raise or lower the Caliber Recoil Penalty, but not before any recoil reducing modifications on the firearm. When reloading a batch of ammunition of this caliber, they receive a +8 bonus on their craft check, and reduce any error chance from using this ammunition by 15%. When Enchanting ammunition of this caliber, reduce the SP cost of the spell by 2.
Special A character may take this feat multiple times. Each time the character takes the feat, they select a different category.

Projectile Specialization

Choose Crossbow bolts, arrows, spear gun spears, .68 caliber paintball rounds, 18mm less lethal rounds, throwing knives/stars, glaves, throwing axes, bricks, or giant throwing stars
Prerequisites Proficient with weapon that fires selected projectile or with specific thrown weapon.
Benefit When firing a weapon that uses the chosen projectile, it grants an additional die of damage. When Enchanting ammunition of this type, reduce the SP cost of the spell by 2.

Special A character may take this feat multiple times. Each time the character takes the feat, they select a different projectile type.

Manual Action Quickshot

Prerequisites Personal Firearms Proficiency
Benefit When using a lever action or pump action firearm, a character can perform double tap attacks with the firearm.
Normal Lever action and pump action firearms can only perform single shot and potshot attacks.

Point Blank Shot

Benefit Characters wielding a firearm threaten adjacent squares and can use their firearm to make attacks of opportunity. These attacks are Potshots and take the normal penalty for Potshot attacks. This attack does not provoke Attacks of Opportunity. Also, when performing a potshot attack with any weapon without a stock, or with an integral, folding, or fixed folding stock in the folded position within 30 feet, the Combat Point cost is 1 less.

Precise Shot

Prerequisites Point Blank Shot
Benefit The character can shoot or throw ranged weapons at an opponent engaged in melee without penalty.
Normal A character takes a –4 penalty when using a ranged weapon to attack an opponent who is engaged in melee combat.

Rifle Clubber

Prerequisites Personal Firearms Proficiency **and** Rifle Specialist **or** Shotgun Specialist
Benefit When executing a buttstroke attack, the character's damage is 1d8+POW modifier lethal damage, and when executing a buttstroke attack the Combat Point cost is 1 less.
Normal Buttstroke attacks have a damage of 1d6+POW modifier damage.

Sharpshooter

Prerequisites Point Blank Shot, Precise Shot
Benefit Your target only receives half of the bonus to DEF due to cover. This feat has no effect against foes with no cover or total cover.
Normal Cover gives the full bonus to defense depending on how much cover the target currently has.

Slamfire Proficiency

Benefit The character's Total Recoil Penalty is reduced by 3 when performing slamfire attacks. This reduction is calculated after the Attack Recoil Penalty and the Caliber Recoil Penalty.

Slamfire Expert

Prerequisites Slamfire Proficiency
Benefit When performing slamfire attacks, the Recoil Penalty is calculated as CRP–1 for two-round slamfire, and CRP–2 for three-round slamfire. The character may also make a single slamfire attack for 0 Combat Point Cost per turn. This attack must be taken before the character's turn ends.

Sling Steady

Prerequisites Personal Firearms Proficiency
Benefit When using a weapon with a sling attached, the character gains a +2 to single shot attacks using that weapon. The character may not use this feat if using a bipod or tripod to steady the weapon.

Spotter

Prerequisites Far Shot
Benefit The character may sight in a target using a telescopic sight for 3 Combat Points.

Shotgun Feats

Shotgun Expert

Prerequisites Personal Firearms Proficiency, Shotgun Specialist
Benefit When firing a bolt, pump, lever, semi- or fully automatic shotgun, the Combat Point cost is 1 less, when clearing a jammed bolt, pump, lever, semi- or fully automatic shotgun the Combat Point cost is 11 less, there is no Combat Point cost to cycle a bolt, pump, or lever action shotgun, and when attempting to repair a bolt, pump, lever, semi- or fully automatic shotgun the character receives a +6 bonus. Also, when performing a potshot attack with a semi- or fully automatic, bolt, pump or lever action shotgun, the character gains a +4 attack bonus.
Special If a character selects the Shotgun Expert Feat, they may not select the Shotgun Ace Feat.

Shotgun Ace

Prerequisites Personal Firearms Proficiency, Shotgun Specialist
Benefit When firing a bolt, pump, lever, semi- or fully automatic shotgun, the Combat Point cost for a no-miss shot is 5 less. When using this feat, a no-miss shot may not be combined with a called shot. Additionally, when using a bolt, pump, lever, semi- or fully automatic shotgun, the character may make one standard melee buttstroke or bayonet attack with it for 0 CP, once per round.
Special If a character selects the Shotgun Ace Feat, they may not select the Shotgun Expert Feat.

Shotgun Savant

Prerequisites Personal Firearms Proficiency, Shotgun Specialist, Close Combat Shotgunner, **and** Shotgun Ace **or** Shotgun Expert
Benefit On your turn once per round when attacking with a bolt, pump, lever, semi- or fully automatic shotgun, the character gains an additional 7 CP that can be spent on movement actions if the attack reduced a creature to 0 CHP or less and that creature is within in the weapon's first two range increments. The Combat Points that are given must be used on movement. Movement using the additional combat points that are given does not provoke attacks of opportunity.
Special If a character selects the Shotgun Savant Feat, they may not select the Shotgun Master Feat.

Shotgun Master

Prerequisites Personal Firearms Proficiency, Shotgun Specialist, Close Combat Shotgunner, **and** Shotgun Ace **or** Shotgun Expert

Benefit When wielding a bolt, pump, lever, semi- or fully automatic shotgun, the Critical Threat range for any of these weapons is 15-18.

Normal The Critical Threat range for all firearms is 16-18.

Special If a character selects the Shotgun Master Feat, they may not select the Shotgun Savant Feat.

Break Barrel Shotgunner

Prerequisites Personal Firearms Proficiency, Shotgun Specialist

Benefit When firing a single shot shotgun or double-barrel OxU or SxS shotgun, the character receives a +3 attack bonus.

Break Barrel Shotgun Expert

Prerequisites Personal Firearms Proficiency, Shotgun Specialist, Break Barrel Shotgunner,

Benefit When firing a single shot shotgun or double-barrel OxU or SxS shotgun with a single shot attack the Combat Point cost is 4 less, and when firing a double-barrel shotgun with a doublefire attack, the Combat Point cost is 3 less, and when attempting to repair a single or double-barrel shotgun, the character receives a +6 bonus. Also, when a character with this feat reduces a creature to 0 CHP or less with a single or double-barrel shotgun, the character immediately gains 5 Combat Points that can be used for attacks or reloading. The Combat Points that are given must be used on attacks or reloading only, and only attacks with the same shotgun that reduced the creature to 0 CHP must be used. A character can only receive these Combat Points once per turn The character may not move any distance and if the bonus Combat Points are not used immediately after the attack, the character loses them.

Close Combat Shotgunner

Prerequisites Personal Firearms Proficiency, Shotgun Specialist

Benefit When targeting an adjacent opponent with any shotgun the character takes no ranged attack penalties, and when firing a shotgun with a folded folding, or fixed folding stock or a pistol grip, the character does not take any penalties to their attack from the stock.

Normal When using most shotguns against an adjacent opponent, the character takes a –6 penalty on all ranged attacks. A character without this feat has the range increment penalty doubled for all attacks with a folded folding, or fixed folding stock or a pistol grip.

Shotgun Specialist

Prerequisites Personal Firearms Proficiency

Benefit When firing a shotgun the Combat Point cost is reduced by 1 and the character gains a +1 attack bonus to all attacks.

Shotgun Reloader

Prerequisites Personal Firearms Proficiency

Benefit Reloading any shotgun with a magazine costs 2 Combat Points. Reloading any shotgun from loose rounds or refilling a magazine costs 1 Combat Points per round loaded. Once per turn, a character may load a shell directly into the barrel of a semi-automatic, pump, bolt, or lever action shotgun for no Combat Points, ejecting the chambered round on the ground.

Simple Weapon Feats

Blunt Specialist

Prerequisites Simple Weapon Specialist (Light Club, Medium Club, Heavy Club, Tool Hammer or Sledgehammer)

Benefit When wielding a light club, medium club, heavy club, tool hammer, or sledgehammer, the Critical Threat range is 14-18.

Normal The Critical Threat range for a light club, medium club, heavy club, tool hammer, or sledgehammer is 16-18.

Club Expert

Prerequisites Simple Weapon Specialist (Light Club, Medium Club or Heavy Club), Blunt Specialist

Benefit When wielding the club chosen from the Simple Weapon Specialist feat, the Critical Threat range for the selected weapon is 13-18.

Club Martial Arts

Prerequisites Simple Weapon Specialist (Light Club, Medium Club or Heavy Club), Blunt Specialist

Benefit When wielding the club chosen from the Simple Weapon Specialist feat, the character gains a +2 attack bonus to all attacks, and takes no penalty when performing non-lethal attacks.

Hammer Martial Arts

Prerequisites Simple Weapon Specialist (Tool hammer or Sledgehammer), Blunt Specialist

Benefit When wielding the hammer chosen from the Simple Weapon Specialist feat, the Critical Threat range is 13-18.

Hammer Expert

Prerequisites Simple Weapon Specialist (Tool hammer or Sledgehammer), Blunt Specialist, Hammer Martial Arts

Benefit When wielding the hammer chosen from the Simple Weapon Specialist feat, the Critical Threat range is 12-18.

Knife Martial Arts

Prerequisites Simple Weapon Specialist (Field Knife, Combat Knife, Survival Knife, Pocket Knife, Escape Knife, Injection Knife, Kukri, Karambit, or Ballistic Knife)

Benefit When wielding the knife chosen from the Simple Weapon Specialist feat, a character receives +1 damage die.

Shield Strike

Benefit The character gains a +3 Reflex Saving Throw Bonus when performing the stumble reactions. On a successful stumble reaction, the stumbled character can be immediately knocked prone, regardless of their prior stance.

Normal Kneeling characters are knocked prone, and standing characters are knocked to kneeling.

Shield Focus

Prerequisites Shield Strike
Benefit When using a shield in melee combat, a character gains a +3 equipment bonus to DEF and when wielding a shield the Critical Threat range is 15-18.

Shield Master

Prerequisites Shield Focus, Shield Strike
Benefit When using a shield improve the cover granted by the shield by one step

Simple Weapon Specialist

Choose a simple melee weapon
Benefit When attacking with the chosen weapon the Combat Point cost to attack is reduced by 1.
Special A character may take this feat multiple times. Each time a character takes the feat, they select a different weapon.

Skill and Saving Throw Feats

Skill Focus

Benefit Select a skill. If the character does not have the selected skill as a focused skill, they gain it as one, and have a +2 miscellaneous bonus to the chosen skill. If the character already has the selected skill as a focused skill, they gain a +4 miscellaneous bonus to the chosen skill instead.
Special When selecting Craft skills, Perform skills, or Knowledge skills, a single specific skill is selected. This feat can be taken multiple times. Each time it is taken, it applies to a different skill.

Focused Saving Throw

Benefit Select Fortitude, Will, or Reflex The character gains a +4 bonus on the selected Saving Throw.
Special This feat can be taken multiple times. Each time it is taken, it applies to a different Saving Throw.

Hobbyist

Benefit A character may select any two unfocused skills. They are now considered focused skills.
Special The character may take this feat multiple times, selecting two different unfocused skills each time.

Healing Knack

Prerequisites Treat Injury 5 Ranks
Benefit The character does not require a first aid kit to stop bleeding, stabilize a dying character or to revive a dazed, stunned or unconscious character.

Instructor

Prerequisites Any Skill 1 Rank
Benefit The character may instruct any other character when they attempt to use a skill, as long as the instructing character possess at least one rank in the skill they are instructing in. The instructed character gets a bonus equal to ½ of the instructor's modifier to the skill.

Menacing

Prerequisites CON 13
Benefit The character may add their CON modifier on Presence checks to intimidate or terrify, the duration of the Presence effect is doubled, and if you fail a Presence check by 5 or more, the target no longer tries to deceive you or hinder your activities.

Savant

Choose a focused skill.
Prerequisites Known Skill (Any) 1 Rank.
Benefit The character gains a bonus equal to their Character Level for that skill immediately. When the character gains a level, they also receive a +1 miscellaneous bonus to the chosen skill.
Special A character may take this feat multiple times. Each time a character takes the feat, they select a different focused skill.

Enthraller

Prerequisites Savant (Presence)
Benefit On a successful Presence checks to terrify, all targets within range are considered Shaken for 1d6 minutes. The effect ends immediately if the target takes damage. The TN of a Presence check to terrify is equal to 10 + the target's WIS modifier + Miscellaneous modifiers, and the Combat Point Cost to Terrify is reduced by 4.
Normal If successful, all targets within range are considered Shaken for 1d6 rounds and the effect ends if the character is attacked. The TN of a Presence check to terrify is equal to 10 + the target's level + the target's WIS modifier + Miscellaneous modifiers.

Vocalist

Prerequisites Savant (Speechcraft)
Benefit The range on all bolster, confuse, and captivate Speechcraft checks are doubled, and on a successful Speechcraft check to confuse, captivate, bolster, or intimidate, the effect's duration is doubled.

Spear Feats

Spear Martial Arts

Prerequisites Archaic Weapon Proficiency (Spears)
Benefit When wielding a halberd, long spear, rifle bayonet, or short spear the Critical Threat range is 14-18. Also, the character can strike adjacent foes with the weapon.
Normal The Critical Threat range for a halberd, long spear, rifle bayonet, or short spear is 16-18.

Spear Specialist

Prerequisites Archaic Weapon Proficiency (Spears), Spear Martial Arts

Benefit When wielding a halberd, long spear, rifle bayonet, or short spear, the character gains an additional 5 feet of reach with the weapon. Also, when wielding a halberd, long spear, rifle bayonet, or short spear every square that the spear can attack has a doubled movement Combat Point cost for any hostile creatures. This effect does not stack.

Spear Mastery

Prerequisites Archaic Weapon Proficiency (Spears), Spear Martial Arts, Spear Specialist

Benefit When wielding a halberd, long spear, rifle bayonet, or short spear, the Critical Threat range is 12-18 and any natural roll of a 15-18 is an automatic hit. Also, when wielding the chosen weapon, every square that the chosen weapon can attack has a tripled movement Combat Point cost for any hostile creatures. This effect does not stack.

Special The Combat Point cost increase replaces any original effect.

Normal 16-18 are automatic hits without this feat.

Staff Feats

Staff Martial Arts

Prerequisites Archaic Weapon Proficiency (Staffs)

Benefit When wielding a long, quarter, or short staff the Critical Threat range is 14-18.

Normal The Critical Threat range for a long, quarter, or short staff is 16-18.

Staff Specialist

Prerequisites Archaic Weapon Proficiency (Staffs), Staff Martial Arts

Benefit When wielding a long, quarter, or short staff as a double weapon, the character does not have to pay the additional +1 Combat Point Cost when fighting with two weapons. Additionally, the offhand is treated as a light weapon.

Normal Attacking with two weapons cost +1 Combat Point cost.

Staff Mastery

Prerequisites Archaic Weapon Proficiency (Staffs), Staff Martial Arts, Staff Specialist

Benefit When wielding a long, quarter, or short staff, the Critical Threat range is 12-18 and any natural roll of a 15-18 is an automatic hit. Additionally, a character can attack up to two targets within their range for the combat point cost of one attack.

Normal 16-18 are automatic hits without this feat.

Thrown Weapon Feats

Brutal Throw

Benefit The character may add your POW modifier (instead of your MRK modifier) to attack rolls with thrown weapons. Also, when the character throws a weapon, its range increment is doubled.

Normal A character attacking with thrown weapons adds his MRK modifiers to the attack roll.

Grenadier

Benefit The character gains a +3 attack bonus on all attacks made using a thrown explosive or splash weapon.

Power Throw

Prerequisites Pow +1, Brutal Throw

Benefit On the character's turn, before making any attacks, the character may choose to take a penalty on all thrown weapon attack rolls and add the same number as a bonus to all thrown weapon damage rolls. This number may not exceed the character's BAB. The penalty on attacks and bonus on damage applies until the character's next turn.

Quick Throw

Prerequisites Brutal Throw

Benefit The character can throw thrown weapons, grenades, and other objects for 3 Combat Points. When a character throws for this reduced cost, the range increment is reduced by 5'.

Normal Throwing a weapon, grenade, or object costs 5 Combat Points.

Multi Throw

Prerequisites Brutal Throw

Benefit When already making an attack with a throwing knife/star, glave, throwing axe, brick, or giant throwing star, the character may throw the same kind of weapon they made the attack with, at the same target with a −4 penalty to attack. If the attack is successful, it deals +1 damage die to that target.

Two Weapon Fighting Feats

Daishō User

Prerequisites STR 13, Archaic Weapon Proficiency (Any), Two Weapon Melee Fighting

Benefit A character may wield a weapon they are proficient with in their primary hand and a small or smaller weapon in their off hand. When wielding two weapons in this manner, the primary weapon has a +2 attack bonus.

Special The benefits of the Two Weapons Melee Fighting Feat apply when using this feat. Weapons that are considered small for the user when using are considered small for this feat.

Daishō Master

Prerequisites STR 13, Archaic Weapon Proficiency (Any), Two Weapon Melee Fighting, Two Weapon Reaction, Improved Two Weapon Melee Fighting, Daishō User

Benefit A character may wield a weapon they are proficient with in their primary hand and a small or smaller weapon in their off hand. Both weapons receive a +3 attack bonus when they are wielded in this manner.

Special The benefits of the Improved Two Weapon Melee Fighting feat apply when using this feat.

Improved Two-Weapon Melee Fighting

Prerequisites STR 13, Two-Weapon Melee Fighting

Benefit The character's penalties for fighting with two melee weapons are reduced by 4 for the primary hand and 8 for the off hand.

Special If the character has the Two Weapon Ranged Fighting feat, they can mix both Ranged and Melee weapons. The benefits of the Improved Two Weapon Melee Fighting replace the benefits of the Two Weapon Melee Fighting feat.

Improved Two-Weapon Ranged Fighting

Prerequisites DEX 13, Two-Weapon Ranged Fighting, Proficient with weapon

Benefit The character's penalties for fighting with two ranged weapons are reduced by 2 for the primary hand and 6 for the off hand.

Special If the character has the Two Weapon Melee Fighting feat, they can mix both Ranged and Melee weapons. The benefits of the Improved Two Weapon Ranged Fighting replace the benefits of the Two Weapon Ranged Fighting feat.

Two Weapon Reaction

Prerequisites STR 13, Two Weapon Melee Fighting

Benefit When wielding a double weapon or two weapons (not including unarmed strikes), the character gain a +2 Miscellaneous bonus to DEF, and once per round, the character receives an attack of opportunity on a creature that fails an attack against the character.

Two Weapon Melee Fighting

Prerequisites STR 13

Benefit The character's penalties for fighting with two melee weapons are reduced by 2 for the primary hand and 6 for the off hand.

Special If the character has the Two Weapon Ranged Fighting feat, they can mix both Ranged and Melee weapons, and the character takes no Attacks of Opportunity when performing ranged attacks in melee range, when doing a two weapon fighting attack. The character still takes Attacks of Opportunity for no-miss shots.

Two Weapon Ranged Fighting

Prerequisites DEX 13, Proficient with weapon

Benefit The character's penalties for fighting with two ranged weapons are reduced by 1 for the primary hand and 3 for the off hand.

Special If the character has the Two Weapon Melee feat, they can mix both Ranged and Melee weapons and the character takes no Attacks of Opportunity when performing ranged attacks in melee range, when doing a two weapon fighting attack. The character still takes Attacks of Opportunity for no-miss shots.

Unarmed Combat Feats

Brawl

Benefit When making an unarmed attack, the character receives a +1 bonus on attack rolls, and the character deals non-lethal bludgeoning damage equal to 1d6+POW modifier

Normal Unarmed attacks normally deal non-lethal bludgeoning damage equal to 1d3+POW modifier

Special Characters with natural melee weapons can use this feat to increase their natural melee weapon's damage by one damage dice, but that damage becomes non-lethal, unless modified by another feat.

Combat Martial Arts

Benefit When making an unarmed attack, the character deals non-lethal bludgeoning damage equal to 1d4+POW modifer. The character's unarmed attacks count as armed, which means that opponents do not get AoO when the character attacks them unarmed. The character may take AoO against opponents who provoke such attacks. The character takes no penalty when performing lethal unarmed strikes.

Normal Unarmed attacks normally deal non-lethal bludgeoning damage equal to 1d3+POW modifier. Choosing to perform lethal unarmed strikes normally imparts a -4 attack penalty. Unarmed attacks normally provoke AoO and unarmed combatants cannot normally make AoO.

Special This feat allows a character with a natural melee weapon to apply any increases of unarmed strike damage to their natural melee weapon's damage instead.

Combat Throw

Prerequisites Evasive Martial Arts

Benefit The character gains a +3 bonus on opposed checks any time the character attempts Trip or Grapple attacks, or when the character tries to avoid a Trip or Grapple attack made against him or her.

Defensive Martial Arts

Prerequisites CON 13

Benefit The character gains 2/Bludgeoning DR.

Improved Brawl

Prerequisites Brawl

Benefit When making an unarmed attack, the character receives a +2 bonus to their attack roll, and the character deals non-lethal bludgeoning damage equal to 2d6+POW modifer.

Normal Unarmed attacks normally deal non-lethal bludgeoning damage equal to 1d3+POW modifier

Special Characters with natural melee weapons can use this feat to increase their natural melee weapon's damage by two damage dice, but that damage becomes non-lethal.

Improved Combat Martial Arts

Prerequisites Combat Martial Arts

Benefit The character's unarmed strike Critical Threat range improves to 15-18.

Normal A character's unarmed strike Critical Threat range is 16-18 without this feat.

Improved Defensive Martial Arts

Prerequisites CON 13, Defensive Martial Arts

Benefit The character gains 4/Bludgeoning DR.

Special This DR is added to the original feat.

Knockout Punch

Prerequisites Brawl

Benefit A character can spend 12 Combat Points to make a single unarmed melee attack with a –2 penalty. If this attack is successful the character gains +4 damage dice. After the attack is made the character is considered Flat-Footed for a single round. This damage is non-lethal damage.

Special Even if the character has the ability to treat unarmed damage as lethal damage, the damage from a knockout punch is always non-lethal.

Pressure Point Strike

Prerequisites Combat Martial Arts

Benefit When performing an unarmed strike, a character may use their AGI modifier for damage instead of their POW Modifier.

Slam Throw

Prerequisites Evasive Martial Arts, Combat Throw

Benefit A successful trip attempt by the character deals damage as they would with an unarmed strike.

Special If a character has any feats that allow them to modify their unarmed strike damage without penalty or increase the damage that unarmed attacks cause, these increase the damage done by this feat.

Street Fighting

Prerequisites Brawl

Benefit Once per round, if the character makes a successful melee attack with an unarmed strike or a small or smaller weapon (including size decreases from equipment, but not from feats or racial traits) the character deals an extra 2 damage dice of damage. This damage dice is the same size and type as the one used for the weapon used. The size of the weapon is determined by the absolute size of the weapon including it's upgrades, and does not benefit from feats or racial abilities that may reduce or increase weapon size.

Unarmed Combat Specialist

Prerequisites Brawl

Benefit When making an unarmed called shot attack, the character receives a +4 bonus to their attack roll and can cause extremity damage with unarmed attacks.

Normal Unarmed attacks cannot cause extremity damage.

Special Unarmed called shot attacks fall under normal called shot rules, and the penalties that are associated with them.

Vehicle Feats

Aircraft Operations

Select a class of aircraft (heavy aircraft, attack helicopters, or attack planes). The character is proficient at operating that class of aircraft.

The heavy aircraft class includes jumbo passenger airplanes, large cargo planes, heavy bombers, and any other aircraft with three or more engines or jet engines.

Attack helicopters include any helicopter with weapons.

Attack planes include military fighter and ground attack planes.

Prerequisites Pilot 5+

Benefit The character takes no penalty on Pilot checks or attack rolls made when operating an aircraft of the selected class.

Normal Characters without this feat take a –4 penalty on Pilot checks made to operate an aircraft that falls in any of these classes, and on attacks made with aircraft weapons. There is no penalty when the character operates a general purpose aircraft.

Special The character may gain this feat multiple times. Each time the character takes the feat, the character selects a different class of aircraft.

Surface Vehicle Operation

Select a class of surface vehicle (heavy wheeled, boats, or tracked). The character is proficient at operating that class of vehicle.

Heavy wheeled class includes all kinds of semi-trucks and tractor-trailers, as well as wheeled construction vehicles (such as earth movers) and wheeled armored vehicles (such as some armored personnel carriers).

Boats are engine-powered water vessels designed for operation by a single person and usually no more than 100 feet in length.

Tracked vehicles include bulldozers and tanks and other military vehicles.

Prerequisites Drive 5+

Benefit The character takes no penalty on Drive checks or attack rolls made when operating a surface vehicle of the selected class.

Normal Characters without this feat take a –4 penalty on Drive checks made to operate a surface vehicle that falls under any of these classes, and to attacks made with vehicle weapons. There is no penalty for operating a general-purpose surface vehicle.

Special A character may take this feat up to three times. Each time the character takes the feat, they select a different class of surface vehicle.

Weapon Proficiency Feats

Archaic Weapons Proficiency

Choose a weapon group from the following list: bows, combat swords, flexible weapons, fencing swords, axes, staffs, spears, picks, or maces.

Benefit The character makes attack rolls with the weapon normally.

Normal A character who uses a weapon without being proficient with it takes a –4 penalty on attack rolls.

Special A character may take this feat up to nine times. Each time a character takes the feat, they select a different weapon group.

Tutoring

Categories Bows, Combat Swords, Fencing Swords, Axes, Staves, Spears, Picks, Flexible Weapons, and Maces
Time 1 day
Benefit Attack penalty is reduced to –2

Exotic Firearms Proficiency

Choose either Cannons, Rifle Grenades or Flamethrowers.

Prerequisites Personal Firearms Proficiency

Benefit The character makes attack rolls with the weapon normally.

Normal A character who uses a weapon without being proficient with it takes a –4 penalty on attack rolls.

Special A character may take this feat up to two times. Each time a character takes the feat, they select a different weapon group. The flamethrower or flamer can not be used without this feat.

Exotic Melee Weapons Proficiency

Choose any two exotic melee weapons.

Benefit When using a chosen exotic weapon, the character makes attack rolls with the weapon normally.

Normal A character who uses a weapon without being proficient with it takes a –4 penalty to attack.

Special A character may take this feat multiple times. Each time the character takes the feat, they select two different exotic melee weapons.

Personal Firearms Proficiency

Benefit The character can fire any personal firearm without penalty and may use the attack bonuses a firearm receives from upgrades.

Normal Characters without this feat take a –4 penalty on attack rolls made with personal firearms,may not reload firearms, and may not use attack bonuses given by firearm upgrades.

Special The character with this feat can use black powder firearms without penalty, but cannot reload them.

Tutoring

Time 1 day
Benefit Can reload firearms and attack penalty is reduced to –3. Considered proficient at using firearms for the purpose of feat prerequisites, but not for having the actual feat.

Explosive Weapons Proficiency

Prerequisites Personal Firearms Proficiency

Benefit When using a grenade launcher, rocket launcher, or mortar the character makes attack rolls with the weapon normally.

Normal A character who uses a weapon without being proficient with it takes a –4 penalty on attack rolls.

Improvised Weapon Proficiency

Benefit The character is considered proficient with all improvised weapons that the character would not be proficient with under normal means. The GM decides which improvised weapon fits into which category. Also, the chance for an improvised weapon to break is reduced to 20%.

Normal Without this feat, a character takes a –2 non-proficient penalty with all improvised weapons. Improvised weapons have a 50% chance of breaking.

Chapter VI

Combat

Basics of Combat

Combat is played out in rounds. In each round everyone acts in turn in a regular cycle. Combat usually runs in the following way:

1. The GM determines which characters are aware of their opponents at the start of the battle. If some but not all of the combatants are aware of their opponents, a surprise round happens before regular rounds begin. The combatants who are aware of their opponents can act in the surprise round, so they roll for Initiative. In Initiative order (highest to lowest), combatants who started the battle aware of their opponents each spend half of their Combat Points. Combatants who were unaware don't get to act in the surprise round. If no one or everyone starts the battle aware, there is no surprise round.

2. Combatants who have not yet rolled Initiative do so. All combatants are now ready to begin their first regular round.

3. Combatants act in Initiative order.

4. When everyone has had a turn, the combatant with the highest Initiative acts again, and steps 2 and 3 repeat until combat ends.

Combat Statistics

This section summarizes the fundamental combat statistics.

Attack Roll

An attack roll represents a character's attempts to hit, strike, or otherwise injure an opponent on the character's turn in a round. When a character makes an attack roll, they roll 3d6 and add their attack bonus. If the result exceeds the target's DEF, the character hits and deals damage. Many modifiers can affect the attack roll.

A natural 3 on the attack roll is always a miss. A natural 16-18 is always a hit and is also always a critical threat (a possible critical strike) unless stated otherwise. If the character is not proficient in the weapon they are attacking with, that character takes a –4 penalty on the attack roll.

Attack Bonus

A character's attack bonus with a melee weapon is
BAB + FOC modifier + Size modifier
A character's attack bonus with a ranged weapon is
BAB + MRK modifier + Size modifier – Range penalty

Focus and Marksmanship Modifier

Focus in STR helps a character swing a weapon harder and faster, so a character's FOC modifier applies to melee attack rolls.

Marksmanship in DEX measures coordination and steadiness, so a character's MRK modifier applies when the character attacks with a ranged weapon.

Size Modifier

Creature size categories are defined differently from the size categories for weapons and other objects. Since this size modifier also applies to Defense against a melee weapon attack or a ranged weapon attack, two creatures of the same size strike each other normally. Creature sizes are compatible with vehicle sizes.

Range Increment and the Range Penalty

The range penalty for a ranged weapon depends on what weapon the character is using and how far away the target is. All ranged weapons and thrown weapons have a range increment. Any attack from a distance of less than one range increment is not penalized for range. However, each full range increment causes a cumulative –2 penalty on the attack roll.

When a weapon uses shotgun shells, the range increment affects both its attack roll and its damage roll, providing a cumulative –2 penalty for each.

A thrown weapon has a maximum range of five range increments.

Ranged weapons that fire projectiles can shoot up to ten increments.

Height and Range

It isn't too often that the ranges of targets will also have height as apart of their components. This can be due to a target being able to fly, or simply being at a higher elevation. In order to calculate the range of a target that is not on the same elevation plane, use the following formula: `Horizontal Range + (Vertical range/2), Rounded down`

Caliber Recoil Penalty (CRP)

Recoil is the reaction of the projectile firing out of the barrel of a firearm. In single shots, recoil is not an issue; enough time is given between shots so that recoil can be absorbed and aim reacquired. In multi-shots, recoil can affect aim and throw off shots. All calibers have a recoil modifier, that will modify all firearm attacks that take use of the Caliber Recoil Penalty.

The strength score of a character will modify the recoil of a firearm, at the rate of `STR-10`. While the strength score can eliminate the recoil penalty, it can never provide a bonus to ranged attacks.

Damage

When a character hits with a weapon they deal damage according to the type of weapon. Effects that modify weapon damage also apply to unarmed strikes and the natural physical attack forms of creatures. Damage is deducted from the target's current HP.

Weapons with multiple damages that appear with a slash provide the listed damages at the same time. Weapons with multiple damage without the slash can apply one of the damages, at the discretion of the attacker. The type of damage must be declared before the attack.

Minimum Weapon Damage

If penalties to damage would bring the damage result below 1, a hit still deals 1 point of damage. Sufficient DR can reduce the amount of damage taken by the target hit, to zero.

Strength Bonus

When a character hits with a melee weapon or thrown weapon, add their POW modifier to the damage.

Wielding a Weapon Two-Handed Medium or smaller sized weapons can be used with one hand. Large or larger sized weapons require two hands to use.
A small or smaller sized weapon is easier to use in a character's off-hand.
When a character deals damage with a weapon that they are wielding two-handed, add 1½ times the character's POW modifier. Two handing a weapon of M size or larger always results in at least a +1 damage bonus. Feats can modify this bonus.

Multiplying Damage

Sometimes damage is multiplied by some factor. In this case, roll the damage (with all modifiers) and multiply the damage by the multiplier.

Critical Strikes

When a character makes an attack roll and receives a natural 16-18, the character hits regardless of the target's DEF and the character has scored a critical strike.

A critical strike immediately targets a character's CHP, regardless of whether they have any XHP remaining. If a character has no XHP remaining, or the attack or effect can not effect CHP, then the damage done by the attack is multiplied by 1.5, rounded up.

A critical strike is scored when you roll within your critical threat range and are able to successfully hit the character. Some weapons have an expanded critical threat range, making a critical strike more likely. However, even with these weapons, only an 16-18 is an automatic hit unless otherwise noted.

Objects (including vehicles) and some types of creatures are immune to critical strikes. A 16-18 is always a successful hit, but does not affect the CHP unless it is a critical strike. All firearms have a critical range of 16-18.

Defense (DEF)

A character's Defense represents how hard it is for opponents to land a solid, damaging blow on the character. It is the attack roll result that an opponent needs to exceed to hit the character. The average unarmored civilian has a DEF of 10. A character's DEF is equal to:

```
    10 + AGI Modifier + Equipment bonus + Size
+ Movement + Miscellaneous Modifiers
```

Agility Modifier (AGI)

If a character's agility is high, they are particularly adept at dodging blows or gunfire. If a character's agility is low, they are particularly inept at it. Characters apply their AGI modifier to DEF. Sometimes a character can't use their AGI Modifier. If a character can't react to a blow, that character can't use their AGI bonus to Defense.

Equipment Bonus

Armor provides Damage Reduction to anyone who wears it, but a character who is proficient in the use of a certain type of armor receives the bonus to DEF. This bonus represents the armor's ability to protect the character from blows. Sometimes a character can't use their equipment bonus to Defense. If an attack will damage the character just by touching them, that character can't add their equipment bonus.

Size Modifier

The bigger an opponent is, the easier it is to hit in combat. The smaller it is, the harder it is to hit. Since this same modifier applies to attack rolls a creature doesn't have a hard time attacking another creature of the same size.

Size	Size Modifier
Colossal	–8
Gargantuan	–4
Huge	–2
Large	–1
Medium	+0
Small	+1
Tiny	+2
Diminutive	+4
Fine	+8

Table 40: Size Modifier to Defense and Attacks

Movement Modifier

When a combatant moves during combat, they become harder to hit. For every 5 feet beyond the first 20 feet a character moves they gain a +1 bonus to their DEF until their next turn, to a maximum of +10 DEF.

Miscellaneous Modifiers

Other factors can add to a character's DEF.

Feats Some feats give a bonus to a character's DEF.

Natural Armor Some creatures have natural armor which usually consists of scales, fur, or layers of thick muscle.

Dodge Bonuses Some other DEF bonuses represent actively avoiding blows. These bonuses are called dodge bonuses. Any situation that denies a character their AGI modifier also denies their dodge bonuses.

Touch Attacks

Some attacks disregard armor. In these cases, the attacker makes a touch attack roll (either a ranged touch attack roll or a melee touch attack roll). The attacker makes their attack roll as normal, but a character's DEF does not include any equipment or armor bonus. Any other modifiers such as AGI, Size, and Movement apply normally.

Injury and Death

There are two types of HP, Core and Extended. CHP measures how much true physical damage a character can take and XHP measures a character's ability to turn a more serious hit into a graze or glancing blow. A character's XHP are always deducted first unless a character is affected by a critical strike.

Logging Damage

When taking damage, it's a very good idea to note the type and source, as some healing items are restricted in the damage they can heal.

Non-lethal Damage

Non-lethal is a modifier that can be applied to damage in several ways. Unarmed attacks and some weapons deal their damage non-lethally by default. Melee weapons can be wielded so as to deal non-lethal bludgeoning damage, but the attacker takes a -4 penalty on attack rolls for trying to deal their damage non-lethally. A ranged weapon's damage depends on its ammunition, and cannot be wielded differently (unless it is used as an improvised melee weapon). Non-lethal damage is resisted by damage reduction and armor according to the base damage type, and cannot cause bleeding.

Non-lethal damage affects the target's XHP only. If the non-lethal damage equals or exceeds the XHP score, the target must make a Fortitude Saving Throw [TN15]. If the target succeeds on the Saving Throw, the target is dazed for 1 round and they fall to 1 XHP. If the target fails, they are knocked unconscious for 1d4+1 rounds.

If the non-lethal damage from a single hit equals or exceeds half or more of the target's current CHP, the target must make a Fortitude Saving Throw [TN18]. If the target fails the Saving Throw, they are stunned for 1d4 rounds and drop any held weapon.

Bleeding

When a character takes more than 3 points of slashing, piercing, ballistic or ballistic piercing damage to CHP or XHP in a single attack, and they are not wearing armor to stop the type of damage, they are now bleeding. When a character is bleeding, they lose HP at the rate of 1d3 per 3 points of applicable damage taken per attack. Bleed damage will stack with any bleed damage the character already has.

Example: *A character already has 1d3 bleed damage and takes another 5 damage, they now bleed 2d3 per round.*

Bleed damage is accounted for after the player has finished their turn. In order to stop bleeding, they must receive first aid (Treat Injury check [TN10]).

Bleeding does not stop if a character is considered disabled, or dying.

Embedding

Objects that can be embedded cause a rather nasty wound. Any weapon that causes bleed damage from a ranged attack and can be embedded gains +1 bleed dice for that attack.

Example: *A character is hit with a throwing knife (which can be embedded) to his CHP for 3 damage. They bleed 2d3 per round instead of 1d3.*

Extremity Damage

If a character is hit anywhere during a called shot attack with a piercing, bludgeoning, slashing, plasma, concussive, ballistic or ballistic piercing weapon, that area is not protected by armor, and that weapon does more than 3 points of damage to that extremity, then the character takes extremity damage. A character can both bleed and take extremity damage. Unarmed strikes cannot inflict extremity damage.

- If the character is hit in the arm they take a –6 penalty to any skill or ability check using that arm, and recieve a –2 attack penalty.
- If the character is hit in the hand they take a –12 penalty to any skill or ability check using that hand and cannot use weapons in that hand.
- If the character is hit in the leg the Combat Point cost to move is doubled.
    - If both legs are hit they drop prone, can only spend enough Combat Points to move 5' every round, and cannot pick themselves up, but can otherwise spend Combat Points as normal.
- If the character is hit in the foot the Combat Point cost to move is tripled.
    - If both feet are hit they drop prone, can only spend enough Combat Points to move 5' every round, and cannot pick themselves up, but can otherwise spend Combat Points as normal.
- If a character is hit in the head and is not wearing a helmet that protects against the damage, the attack is automatically considered to be a critical strike and they are stunned for 1d3 rounds.

These penalties and damage stay until the character undergoes successful surgery and receives at least two weeks of long term care.

Disabled (0 Hit Points)

When a character's current CHP drop to exactly 0 the character is disabled. The character is not unconscious, but they are close to it. The character can only spend 5 Combat Points.

If the character attacks or perform any other action the GM deems as strenuous, the character takes 1 point of CHP damage after completing the act. Unless the activity increased the character's CHP the character is now at –1 CHP and is dying. Healing that raises the character above 0 CHP makes them fully functional again, just as if the character had never been reduced to 0 or lower. A character can also become disabled when recovering from dying. In this case it is a step up along the road to recovery and the character can have fewer than 0 CHP.

Dying (–1 to –9 Hit Points)

When a character's current CHP drop below 0, the character is dying. A dying character has a current CHP total between –1 and –9.

A dying character immediately falls unconscious and can take no actions.

A dying character still takes bleed damage at the end of their turn.

Recovering without Help

Each round a dying character makes a Fortitude Saving Throw [TN20]. If the Saving Throw fails the character is still considered dying and must make another Saving Throw on their turn the next round.

If the Saving Throw succeeds the character becomes stable. A stable character regains consciousness, becoming disabled. The character's current CHP total remains where it is unless otherwise affected, however, even though it is negative. If the Saving Throw fails the character remains unconscious. A dying character still takes bleed damage at the end of their turn.

An unaided stable, conscious character who has negative CHP (and is disabled) doesn't heal naturally. Instead, the character makes a Fortitude Saving Throw [TN20] each day to start recovering HP naturally that day; if the Saving Throw fails, they lose 1 CHP. Once an unaided character starts recovering HP naturally the character is no longer in danger of losing additional CHP (even if their current CHP total is still negative).

Recovering with Help

A dying character can be made stable with a Treat Injury check [TN15]. If successful, the character becomes disabled. Even while disabled the character recovers HP naturally and they can return to normal activity when their CHP goes above 0.

Dead (–10 hit points or lower)

When a character's current CHP drop to –10 or lower they are dead. A character can also die if their CON is reduced to 0. Dead characters can perform no actions, have 0 Combat Points, and may take no actions.

Massive Damages and the "Chunky Salsa" rule

There are times where rolling damage would be completely superfluous and pointless due to the number of damage dice rolled. At the discretion of the GM, If any character or creature would be damaged by an attack or action that has 1.5x or more damage **dice** than the character has both CHP and XHP combined, the GM can immediately reduce this character or creature's XHP and CHP to 0. If a GM does want to apply bleed damage in this case, treat each damage dice as if it rolled the lowest possible value per dice. Also, if any character or creature would be damaged by an attack or action that has more than 2x damage **dice** than the character or creature has in both CHP and XHP combined, the GM can immediately consider this character dead. Bleed damage is usually unnecessary in this case, but can be applied in the same manner as stated before. If an object or vehicle would be damaged by an attack or action that has more than 2x damage **dice** than the object or vehicle has in HP, the GM can immediately consider the object destroyed, and blown to pieces.

Healing

After taking damage, a character can recover HP through natural healing (over the course of days) or through medical technology (somewhat faster). In any case, a character can't regain HP past their full normal total. A character's CHP heal first and then their XHP.

Natural Healing

A character recovers 1 HP per level per evening of rest (8 hours of sleep). A character undergoing complete bed rest (doing nothing for an entire day) recovers 2 HP per level instead.

Healing Ability Damage

Ability damage returns at the rate of 1 point per evening of rest (8 hours of sleep). A character undergoing complete bed rest (doing nothing for an entire day) recovers 2 points instead.

When healing ability damage from poisons, the affected character can heal 1 additional point of damage per day, if they take a dose of antidote that day.

Recovering from Extremity Wounds

When a character is hit in the extremity, they lose all ability to use that extremity successfully. A character recovering from extremity damage without surgery needs at least two weeks of long term care to be partially functional. For every two weeks beyond the initial two weeks of care the character recovers 2 HP that were lost by being hit in an extremity.

Temporary Hit Points

Certain effects can give a character temporary HP. When a character gains temporary HP make a note of their current HP before adding the temporary HP. When the temporary HP goes

away, the character's HP is reduced by the amount of temporary HP they gained. When temporary HP are lost, they can't be restored as real HP can be, even with medical treatment. If a character revives medical treatment while having temporary HP, the HP gained from medical treatment takes the place of temporary HP, up to the character's normal HP.

CON Increases & Current HP

An increase in a character's CON score, even a temporary one, can give the character more CHP and XHP but these are not temporary HP. They can be restored through normal healing. When a character's CON goes back to normal after a temporary increase or is permanently reduced the character's full normal HP go down accordingly.

Saving Throws

Generally, when a character is subject to an unusual attack, they receive a Saving Throw to avoid or reduce the effect. A Saving Throw is a 3d6 roll plus a bonus based on the character's level (the character's Base Save Bonus) and an ability modifier. A natural 3 on a Saving Throw is always a failure. A natural 18 is always a success. A character's Saving Throw bonus is:

```
Base Save Bonus + Ability modifier + Miscellaneous modifiers
```

The TN for a Saving Throw is determined by the attack itself.

Saving Throw Types

The three kinds of Saving Throws are:

Fortitude Saving Throw These Saving Throws measure a character's ability to stand up to massive physical punishment or attacks against their vitality and health such as poison and paralysis. Apply a character's CON modifier to their Fortitude Saving Throws.

Reflex Saving Throw These Saving Throws test a character's ability to dodge massive attacks such as explosions or car wrecks. Often, when damage is inevitable, a character receives a Reflex Saving Throw to take only half damage. Apply the character's AGI modifier to their Reflex Saving Throw.

Will Saving Throw These Saving Throws reflect a character's resistance to mental influence and domination effects. Apply the character's WIS modifier to their Will Saving Throw.

Surprise

When a combat starts, if a character was not aware of his enemies and they were aware of the character, that character is surprised. Likewise, a character can surprise their enemies if the character knows about them before they're aware of the character.

If some but not all of the combatants are aware of their opponents, a surprise round happens before regular rounds begin. The combatants who are aware of the opponents can act in the surprise round, so they roll for Initiative. In Initiative order (highest to lowest) combatants who started the battle aware of their opponents each can spend half of their Combat Points during the surprise round. If no one or everyone is surprised, the surprise round does not occur.

Unaware Combatants

Combatants who are unaware at the start of battle do not get to act in the surprise round. Unaware combatants are Flat-Footed. Because of this, they lose any AGI bonus to Defense.

Initiative

Each combatant can do something every round. The combatants' Initiative checks, from highest to lowest, determine the order in which they act, from first to last. If characters enter a battle after it has begun, they roll Initiative at that time and act whenever their turn comes up in the existing order.

Initiative Wagering

Before the battle starts, a character can choose to wager their Combat Points and gain an Attack Penalty for a temporary bonus to their initiative checks. The character can wager as many Combat Points as they have.

The character may only wager one amount of Combat Points and Attack Penalty for one bonus modifier. A character must declare that they are wagering before they perform their initiative check and the amount they are wagering for the initiative bonus. If they do not, then they are unable to wager. Below is a chart with the total wager cost and the bonuses to initiative.

Initiative Bonus Modifier	Wager Cost
+1	-1 CP and -1 Atk penalty
+2	-3 CP and -3 Atk penalty
+3	-6 CP and -6 Atk penalty
+4	-10 CP and -10 Atk penalty
+5	-15 CP and -15 Atk penalty

After the 1st round is complete, these penalties are removed, and the character may attack without this penalty and their Combat Points return to normal, unless some other status effect has modified them. Characters joining a battle already in progress can not initiative wager.

Initiative Checks

At the start of a battle, each combatant makes a single Initiative check. An initiative check is a DEX check. Each character applies their AGI modifier to the roll, plus any other modifiers. The GM finds out what order characters are acting in, counting down from highest result to lowest, and each character acts in turn. On all following rounds the characters act in the same order unless a character

takes an action that results in their Initiative changing (see Special Initiative Actions).

If two or more combatants have the same Initiative check result, the combatants who are tied go in order of total Initiative modifier (including DEX modifier and Improved Initiative bonus, if applicable). If there is still a tie, the character with the highest DEX goes first. If there is still a tie, the characters who tie reroll for the position.

Combat Points

A character's Combat Point score determines how many actions a character can perform during their turn. A character can perform as many actions as they have Combat Points. Any Combat Points left over do not cycle over between rounds. Every character has 15 Combat Points (Or their Racial Combat Point Score) to spend per round.

Actions in Combat

The fundamental actions of moving and attacking cover most of what a character wants to do in a battle. They are described here.

The Combat Round

Each round represents 6 seconds in the game world. A round is an opportunity for each character involved in a combat to take an action. Anything that a person could reasonably do in 6 seconds, a character can do in 1 round. Each round's activity begins with the character with the highest Initiative result and then proceeds, in order from there. Each round of a combat uses the same Initiative order. When a character's turn comes up in the Initiative sequence that character use their Combat Points to perform actions. For exceptions, see AoO and Special Initiative Actions. For almost all purposes there is no special meaning to the beginning or end of a round. A round can be a segment of game time starting with the first character to act and ending with the last, but it usually means a span of time from a certain round to the same Initiative number in the next round. Effects that last a certain number of rounds end just before the same Initiative count that they began on.

Combat Points

Combat Points are a measurement of how much a character can do in a single round. A character may spend as many Combat Points as they possess, but once they spend all of their Combat Points their turn is over.

Action Types

The three types of actions are attack, move, and speak actions. In a normal round, a character can perform as many actions as they'd like, as long as they have enough Combat Points for all of their actions. In some situations (such as in the surprise round) a character may be limited to a certain amount of Combat Points they can spend.

Attack Action An attack action is an action where a character attacks something. During a combat round, a character can make as many attacks as they have Combat Points to spend. A character can physically move some distance before or after performing an attack action.

Move Action A move action is an action where a character moves in some way. This includes running and walking, drawing or stowing a weapon or other object, standing up, sitting down, or picking up or manipulating an object.

Speak Action A speak action allows a character to convey information in the form of words to those around them. A character can say 15 words during this action and it is usually spoken all the while they perform their actions.

Actions	
Attack Actions	**AoO[1]**
Attack (melee)	Maybe
Attack (ranged)	Yes[6]
Attack (unarmed)	Yes
Attack (aid another)	No
Escape a grapple	No
Ready (triggers an attack action)	No
Attack a weapon	Yes
Attack an object	Maybe[2]
Call a Shot	No
Coup de Grâce	Yes
Move Actions	**AoO[1]**
Move actual distance	Yes
Use a piece of equipment	No
Retrieve a stored object from a MOLLE pouch	Yes
Climb	No
Climb, accelerated	No
Crawl	No
Draw a weapon from a holster or sheath[3]	No
Holster a weapon	Yes
Move a heavy object	Yes
Open a door	No
Pick up an object	Yes
Reload	Yes
Stand up from prone, sitting, or kneeling	Yes
Swim	No
Use a skill that requires movement	Usually
Make a dying character stable	Yes
Withdraw	No
Reaction	No
Speak Action	**AoO[1]**
Speak	No
Action Type Varies	**AoO[1]**
Disarm[4]	Yes
Grapple[4]	Yes
Trip an opponent[4]	No
Use a feat[5]	Varies
No Action	**AoO[1]**
Delay	No
Ready	No

1 Regardless of the action, if a character moves out of a threatened square, the character usually provokes an AoO. This column indicates whether the action itself, not moving, provokes an AoO.
2 If the object is being held, carried, or worn by a creature, yes. If not, no.
3 If the character has the Two-Weapon Melee Fighting or Two-Weapon Ranged Fighting feat, they can draw two light or one-handed weapons in the Combat Point cost it would normally take to draw one.
4 These attack forms substitute for a melee attack, not an action. As melee attacks they can be used in a normal melee attack, or even as an AoO.
5 The description of a feat defines its effect.
6 The AoO happens after the original attack has been complete.

Table 41: Provoking Attacks of Opportunity

Attack Actions

Actions	
Actions	CP Cost
Fire a Slingshot	6
Fire a Crossbow or Speargun	5
Fire a Bow, Light Pull	5
Fire a Bow, Medium Pull	6
Fire a Bow, Heavy Pull	7
Fire a Flamethrower or Flamer	8
Spray Chemical Irritants	4
Fire Taser	6
Fire Ballistic Knife	4
Fire Mortar	12
Throw a thrown/splash weapon or grenade	5
Single Shot, Diminutive to Small firearm	5
Single Shot, Medium firearm	6
Single Shot, Large to Huge firearm	8
Single Shot, Gargantuan and larger firearms	9
No-miss Shot	12
Double Fire	6
Autofire	6
Potshot	4
Double Tap	6
Burst Fire	5
Bump Fire	5
Suppressive Fire	9
Sweepfire	4
Sprayfire	4
Fanning, Two Round	5
Fanning, Three Round	6
Slamfire, Two Round	5
Slamfire, Three Round	6

Table 42: Ranged Attack Actions

Actions	
Action	CP Cost
Standard Melee Attack, Diminutive to Small Weapons	3
Standard Melee Attack, Medium to Large Weapons	4
Standard Melee Attack, Huge and larger Weapons	5
Grab	3
Trip Attack	5
Knockout Blow	12
Disarm Attack	5
Coup de Grâce	12
Melee Attack Modifiers	
Fighting Defensively	+1
Light Attack	–1
Heavy Attack	+2
Full Attack	+7
Aggressive Attack	+2
Thrust Attack	+1
Swipe Attack	+1
Other Attack Actions	
Reaction	7

Table 43: Melee Attack Actions

Ranged Attacks

With a ranged weapon, a character can shoot or throw at any target that is within the ranged weapon's maximum range and in line of sight. A target is in line of sight if there are no solid obstructions between the character and the target. The maximum range for a thrown weapon is five range increments. For weapons that fire projectiles, it is ten range increments.

Shooting or Throwing into a Melee

If a character shoots or throws a ranged weapon at a target that is engaged in melee with an ally, the character takes a –4 penalty on their attack roll because the character has to aim carefully to avoid hitting the ally. Two characters are engaged in melee if they are enemies and they are adjacent to one another. An unconscious or otherwise immobilized character is not considered engaged unless they are actually being attacked. If the target is so big that part of it is 10' or farther from the nearest ally the character can avoid the –4 penalty even if it is engaged in melee with an ally.

Ranged weapons and Telescopic Sights

Attaching a telescopic sight to a weapon changes how attacks are made. To use a telescopic sight, a character must spend 6 Combat Points acquiring their target. If the character changes targets or otherwise loses sight of the target, they must reacquire the target to gain the benefit of the scope. Any character attempting to attack a target within the weapon's first range increment suffers a –4 penalty to their attack roll.

Bows

A bow can be pulled back and readied in three different strengths,

- **Light Pull** Light pulls have –1 damage die and the range is reduced by 5'.
- **Medium Pull** Medium pulls have no bonuses or penalties to damage.
- **Heavy Pull** Heavy pulls have +1 damage die and the range is increased by 10'.

Firearms

The most basic form of attack with a firearm is a single shot. One attack is one pull of the trigger and fires one bullet at one target. The Personal Firearms Proficiency feat allows a character to make this sort of attack without penalty.

If a character isn't proficient in personal firearms they take a –4 penalty on attacks with that type of weapon. A multi-shot attack is any attack that fires more than one round or shell. As with all forms of ranged weapons, attacking with a firearm while within a threatened square provokes an AoO.

All firearms deal ballistic damage and have a critical threat range of 16-18 unless otherwise noted.

Recoil Penalty

Multishot attacks have an attack penalty based on the caliber's damage. For every +2 or –2 to damage a caliber has, it has a –1 or +1 added to its recoil penalty.

> Example: *10mm Auto FMJ does 2d6+4 damage and has a recoil penalty of –4. Two from the number of dice, one for each +2 damage, and zero from the die size.*

Damage	Penalty	Damage	Penalty
1d	–1	7d	–9
2d	–2	8d	–10
3d	–4	9d	–12
4d	–5	10d	–15
5d	–6	11d	–16
6d	–8	12d	–18

Table 44: Recoil Penalty, Amount of Dice

Damage	Penalty	Damage	Penalty
None/d1	+5	d6	+0
d2	+3	d8	–1
d3	+2	d10	–2
d4	+1	d12	–3

Table 45: Recoil Penalty, Die Type

When calculating recoil penalties, a character uses `(Strength Score - 10)` to add or subtract from the caliber recoil penalty, before coming up with the final penalty. Regardless of circumstances the maximum value for the recoil penalty is +0.

Close Combat & Firearms

Firearms are anything but close ranged weapons, they're designed with range, and the benefits that come with it, in mind. Because of this, many firearms are unwieldy to use in close quarters. A character takes a –6 penalty on all ranged attacks against an adjacent creature, or against a creature who successfully struck them with a melee attack since their last turn, when any of the below situations are met:

- Shotguns
  - Any non sawn-off barrel **and** any stock that isn't a pistol grip, or folding stock in the folded position, or fixed folding stock in the folded position.
- Assault, Battle, Target, Sniper, Anti-Materiel, Or Designated Marksman Rifles
  - Any stock that isn't a pistol grip, or folding stock in the folded position, or fixed folding stock in the folded position.
- Machine Guns
  - Any
- Rocket Launchers and Grenade Launchers
  - Any

Multiple and Alternate Types of Ammunition and Damage

Often a character will have two or more different types of ammunition in a single magazine or gun out of personal preference or necessity. The error range from ammunition only applies when it is the ammunition you're firing. As a general rule the last round put into the magazine or firearm is the first out. In the case of damage for two or more types of rounds, the majority of amunition used imparts any bonuses or penalties. In the case of a tie, the ammunition type with the least benefit against the target, such as the lowest damage increase, or greatest penalty, such as the highest penalty to damage, is the one that is applied.

For the purpose of damage and damage dice increases and decreases, the damage that possesses the most damage dice is the one that is modified. In the case of a tie, the non-ballistic damage is the one that is modified. All damage dice are counted for the purpose of determining how many dice to use.

> Example: *5.7x28mm AP does 2d4-1 ballistic damage and 2d4 piercing damage. If you were to perform a 3, 4, 5 or 6 round burst fire attack using this caliber, the attack would gain +3 piercing damage dice.*

Some fire modes can increase the amount of damage dice that are given. When calculating this, the current base damage dice for the caliber, including any modifiers from ammunition types, are used to calculate. These damage dice are added onto the base damage the caliber has, and not included in any calculations for when calculating bonuses to damage or damage dice from ammunition.

Single Shot

A single shot is the firing of a weapon at center mass of a target. On most sentient, upright creatures, this is the chest area.

If a ranged weapon has a semi-automatic or single rate of fire it may be used to single shot. With firearms, the size of the firearm affects how many Combat Points it takes to perform a single shot attack. The Combat Point cost for single shot attacks can not be reduced below 1 Combat Point cost.

- **Diminutive to Small sized Firearms** 5 Combat Points
- **Medium sized Firearms** 6 Combat Points
- **Large to Huge sized Firearms** 8 Combat Points
- **Gargantuan and Larger sized** 9 Combat Points

Upgrades, such as stocks, can affect the Combat Point cost of a single shot attack. In addition to stocks, the type of action of the firearm can have effects on the Combat Point cost of a single shot attack.

- **Single Action (SA)** All single action firearms gain a +1 attack bonus on all single shot and potshot attacks. Single action firearms with cylinders cost +1 Combat Point when performing a single shot attack.
- **Double Action/Single Action (DA/SA)** All single shot attacks with double action/single action firearms after the first attack gain a +1 attack bonus. The first shot has no bonus or penalty, but the hammer may be cocked back for 1 Combat Point, giving a +1 attack bonus for the first shot.
- **Revolver Double Action (RDA)** Revolver Double action firearms can have their hammer cocked back for 1 Combat Point, gaining a +1 attack bonus on single shot attacks.
- **Preset Action (PA)** All single shot attacks with a preset action have a +1 attack bonus.
- **Lever Action** Attacks with a lever action cost 3 Combat Points more when firing from a prone position, but 1 Combat Point less when performing single shot attacks.
- **Bolt Action** All single shot attacks with a bolt action have a +1 attack bonus, but cost 1 Combat Point more.
- **Open Bolt** Open bolt firearms have a –2 attack penalty for single shot attacks, a –1 attack penalty for all multi-shot attacks, and cost 1 Combat Point less when reloading. They can't have a round chambered and can't be cycled without firing a round.
- **Telescopic Sights** Telescopic sights require 6 Combat Points to acquire the sight before they can fire.
- **Side-by-Side (SxS)** shotguns have a +3 attack bonus to all potshot attacks.
- **Over-and-Under (OxU)** shotguns have +1 attack bonus to all single shot attacks.
- **Grenade Launchers** Grenade Launchers can only make single shot and potshot attacks.

Potshot

A potshot is the firing a single shot of a weapon in the general direction of the intended target without careful aim.
If a ranged weapon has a semi-automatic or single rate of fire it may be used to potshot. The character targets a specific creature and makes an attack roll with a –6 penalty.

If the attack is successful the character may roll the standard damage.

Using this attack fires a single round or shell and can only be done if the weapon has at least one in it. Potshots, for the purpose of feats, attacks, and other effects, are considered single shot attacks.

The Combat Point cost for potshot attacks can not be reduced below 1 Combat Point cost. Potshot can not perform called shot attacks.

No-Miss Shot

A no-miss shot is an attack where the character places the barrel of the firearm against the target so that the muzzle is directly in front of the item to be shot, and then pulls the trigger. When performing a no-miss shot against a target, the defending character gets an AoO.

If this AoO is successful the no-miss shot is thwarted and the attacker wastes the Combat Points spent on the attack, but the firearm is not fired.

If the AoO is unsuccessful the character can roll damage. A character must be adjacent to the target in order to perform a no-miss shot.

When a character wishes to use a called shot action in conjunction with the no-miss shot attack, the defending character gains an attack roll bonus equal to the penalty of the called shot when they perform their AoO.

Double-fire

If a ranged weapon has two barrels that can be fired simultaneously the weapon can be used for double-fire. The firearm is fired as if it were a single shot and if the attack succeeds, the character rolls the damage twice.

Double-fire uses 2 rounds of ammunition and can only be used if the weapon has 2 rounds of ammunition in it.

Double-fire can also be used for underbarrel grenade launchers, mounted tasers and underbarrel firearms. When double-firing using them, there is a –4 to the attack roll for each weapon and each attack is rolled separately.

Autofire

Autofiring is firing a loosely controlled burst of automatic fire at a specific area from an automatic weapon.

If a ranged weapon has an automatic rate of fire a character may set it on autofire. Autofire affects an area and everyone and all objects in it, not a specific creature or object. The character targets a 10' by 10' area and makes an attack roll; the targeted area has an effective DEF of 10. The recoil penalty for autofire is CRP–7.

If the attack succeeds, every creature within the affected area must make a Reflex Saving Throw [TN15]. If they succeed they take half of the weapon's damage.

Autofire uses a number of rounds dependent on the rate of fire of the gun. Slow ROF consumes 8 rounds, Medium ROF consumes

10 rounds, and Fast ROF consumes 12 rounds and can only be used if the weapon has enough rounds in it.

Fast ROF gains +1 damage dice and a -2 attack penalty when attacking.

Autofire can not perform called shot attacks.

Bump Fire

Bump firing a firearm is using the recoil of a semi-automatic firearm in order to simulate automatic fire. The recoil penalty for bump fire is the CRP–8. In all other respects, bump firing is the same as autofire using Medium ROF.

Suppressive Fire

Suppressive fire is firing a tight controlled burst of automatic fire at a specific area for an extended period of time from an automatic weapon.

If a ranged weapon has an automatic rate of fire, a character may use it for suppressive fire. To perform suppressive fire, the character makes an autofire attack as normal. If the attack succeeds they can elect to continue firing in that specific area, beginning their suppressive fire.

Any creature that starts their turn in or enters the area immediately takes the weapon's damage for every 5' square they move through that is currently being suppressed. Every creature that starts their turn in or steps within the affected area must make a Will Saving Throw [TN18]. If they succeed they are Shaken for 1d3 rounds. If they fail they are Rattled for 1d3 rounds.

The character performing suppressive fire can shift the area suppressed at 5' per 3 Combat Points and it takes 9 Combat Points to either sustain the suppressive fire or end it.

Suppressive fire uses a number of rounds dependent on the rate of fire of the gun. Slow ROF consumes 8 rounds, Medium ROF consumes 10 rounds, and Fast ROF consumes 12 rounds and can only be used if the weapon has enough rounds in it for two consecutive uses of an autofire attack.

Fast ROF gains +1 damage dice and a -2 attack penalty when attacking. Suppressive fire can not perform called shot attacks.

While performing suppressive fire attacks, the character is considered flat footed.

Sweeping Fire

Sweeping fire is firing a loosely controlled burst of automatic fire in a 90° arc from an automatic weapon.

If a ranged weapon has an automatic rate of fire a character may use it to sweeping fire. The character fires in a cone, with the total length of the cone being the ½ range increment of the weapon, rounded down to the nearest 5' up to 40' total. The recoil penalty for sweepfire is the CRP–10.

If the attack succeeds against any targets caught in the arc the character may roll their damage as normal on all characters hit.

Sweeping fire uses a number of rounds dependent on the rate of fire of the gun. Slow ROF consumes 12 rounds, Medium ROF consumes 15 rounds, and Fast ROF consumes 18 rounds and can only be used if the weapon has enough rounds in it.

Fast ROF gains +1 damage die and a -2 attack penalty when attacking.

Sweeping fire can not perform called shot attacks.

Sprayfire

Sprayfiring is firing a loosely controlled burst of automatic fire at a specific target, from an automatic weapon.

If a ranged weapon has an automatic rate of fire, a character may use it to sprayfire. The character targets a specific creature. If the attack succeeds, the character gains +4 damage dice for the attack. The recoil penalty for sprayfire is the CRP–10.

Sprayfire uses a number of rounds dependent on the rate of fire of the gun. Slow ROF consumes 8 rounds, Medium ROF consumes 10 rounds, and Fast ROF consumes 12 rounds and can only be used if the weapon has enough rounds in it.

Fast ROF gains +1 damage dice and a -2 attack penalty when attacking.

Sprayfire can not perform called shot attacks.

Burst Fire

Burst fire is firing a small burst of bullets at a specific target.

If a ranged weapon has an automatic rate of fire a character may use it to burst fire. The character targets a specific creature and makes an attack roll.

If the attack succeeds the character may roll their damage with extra damage dice depending on how many damage dice were rolled originally and the type of burst fire. The recoil penalty for a two-round burst is the CRP–2. The recoil penalty for a burst with three or more rounds is the CRP–4.

The dice are always the same type as used in the original damage. Burst fire uses a number of rounds dependent on the rate of fire of the gun. Medium ROF consumes 5 rounds, and Fast ROF consumes 6 rounds and can only be used if the weapon has enough rounds in it. However, if the firearm has a 2 or 3 round burst setting, firing a burst expends two or three rounds or shells instead of the ROF round requirements and can be used if the weapon has two or three rounds or shells in it. Slow ROF is not able to burst fire.

- **2 Round Burst** For damage with two or less dice the character gains +1 die. For three or more dice the character gains +2 dice plus 1 extra die for every three dice beyond the first three.
- **3 or 5 Round Burst** For damage with two or less dice the character gains +2 dice. For three or more dice the character gains +3 dice plus 1 extra die for every three dice beyond the first three.
- **6 Round Burst** For damage with two or less dice the character gains +3 dice and a -2 attack penalty. For three or more dice the character gains +4 dice plus 1 extra die for every three dice beyond the first three, and a -2 attack penalty.

Ammunition that increases or decreases total damage dice should be calculated before calculating the damage of the weapon for the purpose of how many damage dice the weapon has.

Burst fire can not perform called shot attacks.

Double Tap

Double tapping is quickly firing two bullets from a semi automatic weapon at a specific target.

If a ranged weapon has a semi-automatic rate of fire it may be used to double tap. The character targets a specific creature and makes an attack roll.

If the attack succeeds the character gains extra damage dice based on the amount of damage dice they roll originally. For damage with two or less dice the character gains +1 die. For three or more dice the character gains +2 dice, plus 1 extra die for every three dice beyond the first three. The dice are always the same type as used in the original damage. The recoil penalty for a double tap is the CRP–3.

Using this attack fires two bullets or shells and can only be done if the weapon has two bullets or shells in it.

Ammunition that increases or decreases damage dice should be included when calculating the damage of the weapon for the purpose of how many damage dice the weapon has.

Double tap can not perform called shot attacks.

Fanning

Fanning is a revolver shooting technique in which one hand holds the trigger and the other hits the hammer repeatedly. This turns the cylinder and hits the firing pin, in that order, allowing for rapid fire of a single action weapon.

If a revolver has a single action rate of fire it can be used to perform a fanning attack.

The character targets a specific creature, declares if they're going to use two or three bullets or shells, and makes an attack roll. If the attack is successful the character may roll their damage with extra damage dice depending on the damage of the round and how many rounds they fired. The recoil penalty for a two-round fan is the CRP–2. The recoil penalty for a three-round fan is the CRP–4.

The dice are always the same type as used in the original damage. Using this attack fires two or three bullets or shells and can only be done if the weapon has two or three bullets or shells in it.

- **2 Round Fan** For damage with two or less dice the character gains +1 die. For three or more dice the character gains +2 dice plus 1 extra die for every three dice beyond the first three.
- **3 Round Fan** For damage with two or less dice the character gains +2 dice. For three or more dice the character gains +3 dice plus 1 extra die for every three dice beyond the first three.

Ammunition that increases or decreases total damage dice should be calculated before calculating the damage of the weapon for the purpose of how many damage dice the weapon has.

Fanning can not perform called shot attacks.

Slamfire

A slamfire is a premature discharge of a firearm that occurs as a round is being loaded into the chamber.

Any weapon that has the slamfire rate of fire can perform a slamfire attack.

The character targets a specific creature, declares if they're going to use two or three bullets or shells, and makes an attack roll. If the attack is successful, the character may roll their damage with extra dice depending on the damage of the round and how many rounds they fired.The recoil penalty for a two-round slamfire is the CRP–4. The recoil penalty for a three-round slamfire is the CRP–5.

The dice are always the same type as used in the original damage. Using this attack fires two or three bullets or shells and can only be done if the weapon has two or three bullets or shells in it.

- **2 Round Slamfire** For damage with two or less dice the character gains +1 die. For three or more dice the character gains +2 dice plus 1 extra die for every three dice beyond the first three.
- **3 Round Slamfire** For damage with two or less dice the character gains +2 dice. For three or more dice the character gains +3 dice plus 1 extra die for every three dice beyond the first three.

Ammunition that increases or decreases total damage dice should be calculated before calculating the damage of the weapon for the purpose of how many damage dice the weapon has.

Slamfire can not perform called shot attacks.

Thrown Weapons

Thrown weapons are weapons that are primarily thrown, such as knives, or axes. When throwing a weapon that is residing in a sheath, or specific pocket built for that weapon, there is no Combat Point cost to draw the weapon when making an attack.

Grenades and Explosives

An explosive is a weapon that effects all creatures and objects within its blast radius by means of shrapnel, heat, or massive concussion when detonated. Its effect is broad enough that it can hurt characters just by going off close to them. Some explosives, such as grenades, can be thrown and explode when they land. Others are planted with fuses or timers and go off after a preset amount of time elapses.

Aimed Grenade Launchers and Rocket Launchers

Grenade launchers, shotguns using explosive shells, and rocket launchers can be used to attack a specific 5' square just like thrown grenades or they can be used to target a specific target. The square has an effective DEF of 10. If a specific target is targeted the defense of the target will be used and the attacker takes a –2 to their attack roll. If the target is hit it takes 1d6 Bludgeoning damage as well as any damage the grenade or rocket does. If the target is missed by a grenade the grenade continues for a single range increment in the direction it was fired until it either reaches the single range increment or collides with an object. If the target is missed with a rocket the rocket continues for three range increments in the direction it was fired or until it collides with an object. When either of these happen the grenade or rocket explodes as normal. All targets beyond the intended target get a Reflex Saving Throw [TN16] to dodge the grenade and a Reflex Saving Throw [TN40] to dodge the rocket. If the target fails the Reflex Saving Throw they are hit with the grenade or rocket. Grenade Launchers can only make single shot and potshot attacks.

Splash Weapons

A splash weapon is a ranged weapon that breaks apart on impact, splashing or scattering its contents over its target and nearby creatures or objects. Most splash weapons consist of liquids in breakable containers.

To attack with a splash weapon, make a ranged touch attack against the target. Thrown splash weapons require no weapon proficiency.

A character can instead target a specific 5' square, including a square occupied by a creature. Use the rules for thrown explosives. Splash weapons do not have a wounding radius.

If the character misses the target (whether aiming at a creature or a square) check to see where the weapon lands using the rules for thrown explosives. After determining where the object landed, it deals splash damage to all creatures within its burst radius.

Thrown Explosives

An attack with a thrown explosive is a ranged attack made against a specific 5' square. Throwing the explosive is an attack action. If the square is within one range increment (thrown weapons have a range increment of 10'), you do not need to make an attack roll. If the target square is more than one range increment away make an attack roll. The square has an effective DEF of 10. Thrown explosives require no weapon proficiency. If the attack succeeds the explosive lands in the targeted square. If the character misses the target the explosive lands in a square nearby in a random direction. Roll a d12 and consult the diagram below to determine where the explosive lands.

1				6				2
				11				
5		12		Target		10		7
				9				
4				8				3

Table 46: Miss Locations

After the explosive's landing point is determined, it deals its damage to all targets within the blast radius of the weapon.

Wounding Radius for Explosives

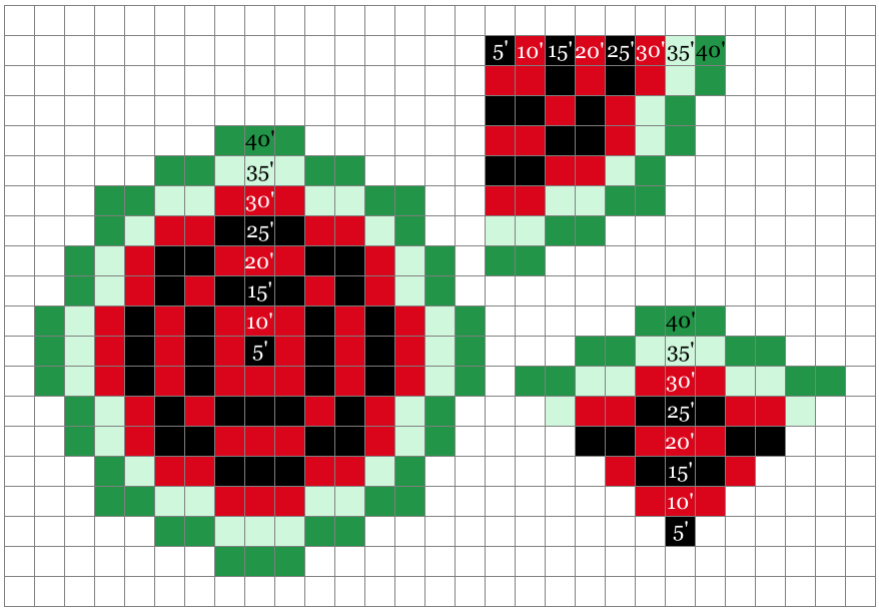
Explosives often reach out past their original blast radius and are still effective. This is called the wounding radius, and is 5' outside of the blast radius per 5'. Any target caught in the wounding radius must make a Reflex Saving Throw [TN15 (+1 per 10' of blast radius)] or take full damage. If the character passes the Reflex Saving Throw, they take half of the damage of the explosive. Only explosives that cause damage can have a wounding radius. Any target caught in the wounding radius of an explosive that can knock a creature prone must make a Fortitude Saving Throw [Original Saving Throw of the explosive to be knocked prone] or be knocked prone.

Cooking off Grenades

Grenades normally take 1 turn to detonate after they are thrown, but a character can cook off a grenade instead. A character can spend the Combat Points it would take to throw a grenade to instead hold it at the ready, throwing it at the very beginning of their next turn. Regardless of if they throw the grenade or not, it still goes off where it is. A character can not perform any other actions but movement while they are cooking off a grenade.

Blast Radius

The blast radius shows the range of squares that an explosive affects. To determine the area affected by a blast or cone, treat the effect as "moving" from the targeted square following the same rules as characters for diagonal movement, with the first square counting for the first 5' of that "movement". Below are references for both cones and blast radius.



Explosives and Extremity damage

Unlike aimed weapons, explosives generally hit multiple areas of a character. If a character is caught in an explosive blast, the GM rolls a d% to determine the locations the character is hit. The d% is rolled for every damage die that is given by the explosive to a maximum of 10. Regardless of the rolls, the character is always hit in the chest. Do not reroll if the character is hit in the same place more than once.

Location	D% roll
Chest	1-10
Left Arm and Hand	11-32
Right Arm and Hand	33-54
Left Leg and Foot	55-76
Right Leg and Foot	77-98
Head	99-100

Table 47: Explosive Extremity Damage Hit Location

When calculating Extremity damage, treat the damage from the explosive as if it hit the determined locations of a character at the exact same time. The damage amount is not multiplied by the amount of locations hit. If any hit location is unprotected by armor, calculate bleed damage based on the full damage. If the character is wearing any armor that protects against the damage, apply its DR to the full damage as normal before applying it to hit points.

Mortars

An attack with a mortar is a ranged attack made against a specific 5' square. A character can also target a square occupied by a creature. If the square is within the first range increment the mortar takes 5 rounds to land. Every range increment after the first reduces the rounds it takes to land by 1 to a minimum of 1. The square has an effective DEF of 10. If the attack succeeds the shell lands in the targeted square. If the character misses the target the shell lands in a square nearby in a random direction. Consult Table: Miss Locations. Mortars have a maximum range increment of 5.

Melee Attacks

With a normal melee weapon, a character can strike any enemy within 5'. Enemies within 5' are considered adjacent to the character. The Combat Point cost for attacking with a weapon is dependent on the size of the weapon.

Trip

A character can try to trip an opponent or otherwise knock him or her down as an unarmed melee attack. A character can only trip an opponent who is one size category larger than the character, the same size, or smaller.

Making a Trip Attack Make an unarmed melee touch attack against the target.

If the attack succeeds, make a STR check opposed by the target's AGI check or STR check (whichever has the higher modifier). This check can benefit from facing and flanking bonuses.

If the attacker and the target are different sizes, the larger combatant receives a bonus on the STR check of +4 per difference in size category. The target receives a +4 stability bonus on their check if they have more than two legs or is otherwise exceptionally stable.

If the attacker wins, they trip the target. If the attacker loses, the target may immediately react and make a STR check opposed by the character's AGI check or STR check to try to trip the character. A tripped target is prone.

Tripping with a Weapon Some weapons, such as the chain and the whip, can be used to make trip attacks. If the character is tripped during their own trip attempt the character can drop the weapon to avoid being tripped.

Disarm

As a melee attack, a character may attempt to disarm their opponent without injury.

If the character does so with a weapon they knock the opponent's weapon out of their hands and to the ground in any adjacent square to the opponent.

If the character attempting to disarm has at least one hand free, the character can choose to instead to have the weapon in their hand instead of dropping it to the ground.

If a character is attempting to disarm the wielder of a melee weapon, follow the steps outlined here. Disarming the wielder of a ranged weapon is slightly different.

Step One The attacker provokes an AoO from the target they are trying to disarm.

Step Two The attacker and the target make opposed attack rolls with their respective weapons.

If the target is using a weapon in two hands they get an additional +4 bonus. Also, if the combatants are different sizes the larger combatant receives a bonus on the attack roll of +4 per difference in size category.

Step Three If the attacker exceeds the target's attack roll the target is disarmed.

If the attacker attempted the disarm action with at least one hand free, they can choose to have the weapon now.

f the attacker has no hands free, or they choose to knock it to the ground, the target's weapon is on the ground in any adjacent square to the target. If the attacker fails the disarm attempt the target may immediately react and attempt to disarm the character with the same sort of opposed melee attack roll. The opponent's attempt does not provoke an AoO from the character.

If the opponent fails to disarm, the attacker does not get a free disarm attempt against the opponent.

Ranged Weapons To disarm an opponent wielding a ranged weapon the character follows the same rules as disarming someone of a melee weapon, but if the character fails the target does not get to make a disarm attempt against them.

Grabbing Objects A character can also use disarm to snatch away an object worn by a target. Doing this works the same as a disarm attempt (see above), except for the following.

Attack of Opportunity If the target's AoO inflicts any damage, the attempt to grab the object automatically fails.

Modifiers If the object is well secured or otherwise difficult to grab from the target, the target receives a +4 bonus. On the other hand, if the object is poorly secured or otherwise easy to snatch or cut away, the attacker gets a +4 bonus.

Failed Attempts Failing an attempt to grab an object doesn't allow the target to attempt to disarm the character.

Fighting Defensively

A character can choose to fight defensively while making a melee attack.If the character does so they take a –4 penalty on their attack in a round to gain a +2 dodge bonus to DEF against all melee attacks in the same round. This action can be done twice per round, each bonus and penalty adding together for a maximum of –8 penalty to attack and a +4 dodge bonus to DEF against melee attacks in the same round.

Light Attack

A character can choose to attack lightly when making a melee attack, sacrificing hitting power for speed. If the character does so they reduce the Combat Point cost by 1 and take a –3 damage penalty on the attack.

Heavy Attack

A character can choose to attack heavily, throwing more of their weight behind an attack. If the character does so they increase the Combat Point cost by 2 and gains a 1 additional damage die to the attack.

Full Attack

A character can choose to full attack, throwing nearly all of their weight behind an attack. If the character does so, they increase the Combat Point cost by 7. This attack provokes an AoO against all enemies within range and grants 2 additional damage dice and a +4 bonus to damage.

Aggressive Attack

A character can choose to attack aggressively, where their primary goal is to force the character to move instead of cause damage. The attack suffers a –2 attack penalty. If the attack is successful the attacker may direct the defender in a specific direction, either left, right, or back. Directing the defender left, they may either move directly left, or left and back, directing the defender right, they may move either directly right or right and back, and directing the defender back, the defender may move straight back, left and back, or right and back. The reference is from the defender's position, and the attacker must choose a direction the defender can physically move to. Moving like this does not provoke any AoO or use any Combat Points. The defender can also choose not to move, instead receiving the Unnerved status effect for 1 round. If the defender chooses not to move and they are already Unnerved, they are now Shaken. If the defender chooses not to move and they are already Shaken, they are now Rattled. If the defender chooses not to move and they are already Rattled, the status effect last 1 additional round.

Thrust Attack

A character can choose to make a thrusting attack with a slashing weapon. When a character thrusts with a weapon, the weapon deals piercing damage instead of slashing damage but takes a –2 damage penalty to the attack. Only swords and knives may use this attack.

Swipe Attack

A character can choose to make a swiping attack with a piercing weapon. When a character swipes with a weapon, the weapon deals slashing damage instead of piercing damage but takes a –2 damage penalty to the attack. Only spears, rapiers and knives may use this attack.

Reaction

A reaction is an action where a character prepares for an oncoming melee attack. A character has the choice of Parrying, Bracing, Stumbling, or Predicting an enemy's melee attack. The character declares that they will perform a reaction, and wait to be attacked. After they declare that they are performing a reaction, their turn immediately ends, and they are unable to make any more actions for that turn. Once they are attacked, they may chose which specific reaction they want to perform, and perform that reaction. If they are attacked by any enemy's melee attack, they roll a Saving Throw that corresponds with the reaction. The TN is Opposing Attack Roll – 5.

Parry Parrying is a reaction where a character uses their weapons or their body to glance off a blow. On a successful Reflex Saving Throw the character is granted a +1 to their DEF, per Reflex Saving Throw Result/2, rounded down. The bonus lasts for all melee attacks until the next turn.

Brace Bracing is a reaction where a character prepares for the oncoming strike. On a successful Fortitude Saving Throw the character is granted Damage Reduction to a single type of damage of their choice, equal to 1 per Fortitude Saving Throw/2, rounded down, and negates 1 bleed damage per 1 per Fortitude Saving Throw/2, rounded down. The bonuses and bleed damage negation lasts for all melee attacks until the next turn.

Predict Predicting is a reaction where a character anticipates an attack and follows through by striking back quickly. On a successful Will Saving Throw the character negates any flanking or facing bonuses from the attacker, and gains one AoO against the attacking opponent per two light, standard, thrust, or swipe attacks the opponent attempts and gains one AoO against the attacking opponent per heavy, full or aggressive attacks. These AoO attacks are made immediately after the attacking opponent finishes the attack that would trigger these attacks. Also, the reacting character gains a damage bonus to the weapon they're using to complete the AoO, equal to 1 per Will Saving Throw/4, rounded down.

Stumble Stumbling is a reaction where a character uses a shield or a weapon, to destabilize an attacker and cause them to lose footing. On a successful Reflex Saving Throw, the character knocks the opposing attacking opponent to a kneeling position if they are standing, or to a prone position if they are kneeling, and their attack is ended. A character can choose the attack on which they perform their stumble, but can only attempt to stumble twice per round.

Unarmed Attacks

Striking for damage with punches, kicks, and head butts is much like attacking with a melee weapon except that an unarmed attack deals non-lethal damage and unarmed strikes use touch attack defense, instead of normal defense. Unarmed strikes count as small melee weapons for purposes of two-weapon attack penalties and so on. An unarmed attack is considered an attack made with a small weapon.

Helpless Defenders

A helpless foe, who is bound, sleeping, unconscious, or otherwise at the attacker's mercy is an easy target. A character can sometimes approach a target who is unaware of their presence, get adjacent to the target, and treat them as helpless. If the target is in combat or some other tense situation and therefore in a state of acute awareness and readiness or if the target can use their AGI bonus to DEF then that target can't be considered unaware. Any reasonable precaution taken by a target including stationing bodyguards, placing their back to a wall, or being able to make Perception checks also precludes catching that target unaware and helpless.

Regular Attack A helpless defender has an effective DEF of 5 + their size modifier. If a character is attacking with a ranged weapon and is not adjacent to the target, the character can attack as normal and gain a +2 bonus on the attack roll. If the character is attacking with a melee weapon, or with a ranged weapon from an adjacent square, the character can attack as normal.

Coup de Grâce A character can use a melee weapon to deliver a coup de grâce to a helpless foe. A character can also use a ranged weapon provided that they are adjacent to the target. The character automatically hits and scores a critical strike. If the defender survives the damage they still must make a Fortitude Saving Throw [TN10 + damage dealt] or die. Delivering a coup de grâce provokes AoO from threatening foes because it involves focused concentration

and methodical action. A character can't deliver a coup de grâce against a creature that is immune to critical strikes.

Knockout Blow

A character can make an unarmed attack or use a melee weapon that deals non-lethal damage to deliver a knockout blow to a helpless foe. A character can also use a melee weapon that deals lethal damage but the character takes a –4 penalty on any attempt to deal non-lethal damage with the weapon. The target has an effective DEF of 5 + their size modifier. If the character hits, the target immediately loses all of their XHP due to a non-lethal attack. Delivering a knockout blow provokes an AoO from threatening foes because it involves focused concentration and methodical action. A character can't deliver a knockout blow against a creature that is immune to critical strikes.

Grapple

Grappling means wrestling and struggling hand-to-hand. There are multiple states to grappling and grabbing, listed below.

Grab

A character can try to grab or otherwise lay hands on an opponent as an unarmed melee attack. If the target is already being grappled, the grab automatically succeeds without provoking an AoO.

Step 1: Grabbing A character provokes an AoO from the target they are trying to grapple. Regardless of if the AoO is successful or not, proceed to step 2.

Step 2: Hold The attacker makes an unarmed melee touch attack against the target. If the attack succeeds, the attacker has grabbed the target. A simple grab can be broken with no opposed check and no Combat Point cost on the target's turn.

Step 3: Execute an action Once the grapple has been established, the character can execute one of a few actions, spending Combat Points.

Grapple A character can try to wrestle and restrain an opponent that they have already grabbed. Characters involved in a grapple will need to make opposed grapple checks, often repeatedly. Grapple checks are ability checks. A character's attack bonus on a grapple check:

BAB + FOC modifier + AGI modifier + Grapple modifier

Grapple Modifier A creature's size works in its favor when grappling if that creature is Large or larger in size. Conversely, a creature of Small or smaller size is at a disadvantage because of its size when grappling. Instead of using a creature's size modifier on a grapple check (as would be done for a melee or ranged attack roll), use the appropriate grapple modifier from Table: Grapple modifier.

Size (Example)	Grapple Modifier
Colossal (blue whale [90' long])	+16
Gargantuan (gray whale [40' long])	+12
Huge (elephant)	+8
Large (lion)	+4
Medium-size (person)	+0
Small (German shepherd)	–4
Tiny (housecat)	–8
Diminutive (rat)	–12
Fine (horsefly)	–16

Table 48: Grapple Modifier

Make an opposed grapple check. If the attacker succeeds, he has grappled the target. If the attacker loses they fail to turn the grab into a grapple.

Damage the Opponent Make an opposed grapple check; if the character succeeds, they deal damage as they would with an unarmed strike or natural weapon. They may choose to change the damage between lethal and non-lethal by applying the normal penalty to their grapply check.

Attack with a Weapon Make an opposed grapple check; if the character succeeds, they may spend additional combat points to perform a single unmodified attack with a Small or smaller weapon against the opponent.

Pin Make an opposed grapple check; if the character succeeds, the targeted limb can no longer be used to take actions or contest grapple checks at all other than attempting to escape from the pin. Can only be used when grappling a specific extremity. A character can't pin the limbs of any creature more than two size categories larger than itself.

Escape from Grapple Make an opposed grapple check; if the character succeeds, they can escape from being grappled, and are now only grabbed. If more than one opponent is grappling the character, the grapple check result has to beat all their individual check results to escape. The escaping character may make an Acrobatics check in place of their grapple check for the opposed roll. This action may only be taken once per round.

Escape from Pin Make an opposed grapple check; if the character succeeds, they can escape from being pinned, and are now only grappled. If more than one opponent is pinning the extremity, the grapple check result has to beat all their individual check results to escape. The escaping character may make an Acrobatics check in place of their grapple check for the opposed roll. This action may only be taken once per pinned extremity per round.

Multiple Grapplers Several combatants can be in a single grapple. Up to four combatants can grapple a single opponent. Creatures that are one size category smaller than the character count as a half creature each; creatures that are one size category larger than the character count as two creatures; and creatures two or more size categories larger than the character count as four creatures.

When involved in a grapple with multiple opponents, the character chooses one opponent to make an opposed check against. The

exception is an attempt to escape from the grapple; to escape, a character's grapple check must exceed the check individual results of all opponents.

Manipulating Objects

Using an object on an unwilling opponent requires the character to grab the target first, and make an opposed grapple check in order to successfully use the object. If the object must be used on specific or multiple extremities, such as handcuffs, the grab must target those using the Called Shot rules.

Attacks of Opportunity

Making an unarmed attack against an armed opponent provokes an AoO from the character attacked. The AoO comes before the character's attack. An unarmed attack does not provoke AoO from other foes, nor does it provoke an AoO from an unarmed foe.

"Armed" Unarmed Attacks

Sometimes a character or creature attacks unarmed but the attack still counts as armed. A creature with claws, fangs, or similar natural physical weapons, for example, counts as armed. Being armed counts for both offense and defense; not only does a creature not provoke an AoO when attacking an armed foe, but a character provokes an AoO from that creature if the character makes an unarmed attack against it. An "armed" unarmed attack is considered an attack made with a small weapon.

Unarmed Strike Damage

An unarmed strike from a Medium-size character deals 1d3+POW modifier of non-lethal bludgeoning damage. A character can specify that their unarmed strike will deal bludgeoning damage before the character makes their attack roll, but the character takes a –4 penalty on the attack roll because they have to strike a particularly vulnerable spot.

Called Shot

When a character attacks they are usually targeting center mass which is the chest and torso region. If a character wishes to target a specific extremity, such as an arm or leg, they may do so. Making a called shot invokes a –6 penalty for an arm or leg, a –7 penalty for a hand or foot, or a –9 penalty for the head.

If the character is hit anywhere during a called shot attack with a piercing, bludgeoning, slashing, plasma, concussive or ballistic weapon, that area is not protected by armor, and that weapon does more than 3 points of damage to that extremity, then the character takes extremity damage. Unarmed strikes cannot inflict extremity damage.a

Attacking with Two Weapons

If the character wields a second weapon in their off hand the character can attack with it like normal. Fighting this way is very difficult, however. When using both weapons in the same attack action, the character takes a –6 penalty on the regular attack or attacks with their primary hand and a –10 penalty on the attack with their off hand.

A character fighting with two weapons only has to spend the Combat Points as if attacking with one weapon, but the Combat Point cost is increased by 1, for the largest weapon used.

Circumstances	Primary Hand Melee Weapon	Primary Hand Ranged Weapon	Off Hand
Normal penalties	–6	–6	–10
Off-hand melee weapon is small or smaller	–4	–5	–8
Two-Weapon Melee Fighting feat	–4	–6	–4
Two-Weapon Ranged Fighting feat	–6	–5	–7
Improved Two-Weapon Melee Fighting feat	–2	–6	–4
Improved Two-Weapon Ranged Fighting feat	–6	–4	–4
Off-hand melee weapon a is small or smaller and Two-Weapon Melee Fighting feat	–2	–4	–2
Off-hand melee weapon is Small or smaller and Improved Two-Weapon Melee Fighting feat	0	–2	0

Table 49: Two-Weapon Fighting Penalties

Move Actions

Move Actions are actions that involve moving of some type.

Action	CP Cost
Walking and Running	1 per 5'
Moving while Crouched	2 per 5'
Moving while Prone; Accelerated Climbing	3 per 5'
Climbing	4 per 5'
Swimming	5 per 5'
Withdraw	4× normal
Draw a weapon from a holster or sheath	3
Unsling or resling a weapon	5
Draw a weapon from Waistband carry	6
Holster a weapon	4
Retrieve or store an item in a pocket, bag, or pouch	4
Retrieve or store an item in a MOLLE vest or LBE gear	3
Pick up or manipulate an object within reach	3
Drop an item	0
Drop to a kneeling, sitting, or prone posture	0
Cycle a weapon	1
Stand up from kneeling, prone, or sitting	6
Clear a jammed firearm	12
Reload a bow	1
Reload a crossbow or speargun	2
Reload a slingshot	3
Reload a Taser	3
Reload a tranquilizer gun	9
Reload a paintball hopper	3
Reload or unload a weapon by hand; Refill or unload a magazine, speedloader, or stripper clip	3 per round or shell
Reload a firearm using a new magazine, speedloader, or stripper clip	4
Reload a link fed weapon with a new link	6
Refill a magazine using a stripper clip	3 per clip
Reload a black powder weapon	12 per barrel or chamber

Table 50: Move Actions

Movement

The simplest move action is moving. Many nonstandard modes of movement are also covered under this category, including climbing and swimming, crawling, and entering a vehicle.

For every 5' beyond the first 20' a character moves, they gain a +1 to their DEF until their next turn, up to a +10.

Manipulating Objects

This move action includes drawing or holstering a weapon, retrieving a weapon or object out of a MOLLE pouch, pocket, or bag, picking up an object, using objects, moving a heavy object, and opening a door, among others.

When pulling ammunition or other tiny objects out of a pack, pocket, or pouch, a character can choose to pull out exactly 1 specific object or round of ammunition, or can choose to remove 2d4 objects or rounds of ammunition as a part of a single action.

Cycle a weapon

Cycling a weapon is the act of purposely cocking the weapon without firing it, ejecting an unused shell or cartridge and readying the next one in the magazine, or letting the cylinder rotate without firing. This is often done for dramatic effect or to ready alternate ammunition in a firearm.

Only weapons with a capacity of three or more rounds may be cycled.

It is not necessary to cycle a weapon as apart of an attack action or move action that would otherwise require the weapon to be cycled to complete the action.

Standing Up

Standing up from a prone position provokes an AoO from opponents who threaten the character.

Reload or unload a weapon

The cost to reload or unload a weapon is dependent on how it is reloaded. Using magazines, speedloaders, or stripper clips is much faster than reloading a weapon by hand. Reloading includes charging the weapon so that it is ready for use. You need at least one functional hand free to reload or unload a weapon.

Withdraw

Withdrawing from melee combat is when a character retreats from melee combat without incurring AoO penalties. When a character withdraws the Combat Point cost to move is multiplied by 4.

The square the character starts from is not considered threatened for purposes of withdrawing and therefore enemies do not get an AoO against the character when they move from that square.

A character may not withdraw using a form of movement for which that character must make a skill check.

Speak Action

With the exception of specific speaking-related abilities, speaking doesn't cost any Combat Points. Speaking allows the character convey 6 seconds of information, which is about 15 words. These words can be conveyed in any language the character can speak. Characters can also make any noises that they wish to produce and that their vocal cords can handle.

Miscellaneous Actions

Some actions don't fit neatly into the above categories. Some of the options described below are actions that take the place of or are variations on the actions described earlier. For actions not covered in any of this material, the GM determines how long such an action takes to perform and whether doing so provokes AoO from threatening enemies.

Use Feat or Skill

Certain feats let a character take special actions in combat. Other feats are not actions in themselves but they give a character a bonus when attempting something they can already do. Some feats aren't meant to be used within the framework of combat. The individual feat descriptions tell a character what they need to know about them.

Most uses of skills in a combat situation are attack actions but some might be move actions. When appropriate the description of a skill provides the time required to use it.

Attacks of Opportunity

The melee combat rules assume that combatants are actively avoiding attacks. A player doesn't have to declare anything special for their character to be on the defensive. Sometimes, however, a combatant in a melee lets their guard down and doesn't maintain a defensive posture as usual. In this case combatants near him or her can take advantage of this lapse in defense to attack for free. These attacks are called Attacks of Opportunity(AoO). Unless otherwise noted, Attacks of Opportunity are taken after the action that triggered them.

Weapon Type

A character can use a melee weapon to make AoO whenever the conditions for such an attack are met. In addition, a character can make AoO with unarmed attacks if the character's unarmed attacks count as armed.

Threatened Squares

A character threatens the squares into which they can make a melee attack even when it is not the character's action. Generally, that's all squares adjacent to the character's position. An enemy that takes certain actions while in a threatened square provokes an AoO from the character. A character can only make AoO with melee weapons, never with ranged weapons, unless that ranged weapon can be used as a melee weapon. Facing and the penalty that comes with it apply with AoO.

Provoking an Attack of Opportunity

Two actions can provoke an AoO:

- **Moving out of a Threatened Square** When a character attempts to moves out of a threatened square that character generally provokes an AoO. There are two important exceptions. A character doesn't provoke an AoO if the character withdraws and if the character doesn't start in a threatened square, but moves into one, the character may stop there without provoking an AoO, although further movement does provoke a single AoO, regardless of how far they move through the threatened squares.

- **Performing an Action that Distracts the Character** Some actions when performed in a threatened square provoke AoO because they make a character divert their attention from the fight at hand. Using a ranged weapon, in particular, provokes AoO.

Making an Attack of Opportunity

An attack of opportunity is a single unmodified melee attack. A character does not have to make an AoO if they don't want to. Making an AoO takes no Combat Points.

Extra Effort

An Extra Effort action is an action where a character pushes themselves beyond their limits using a burst of energy to get more accomplished in a single round. The character receives 5 extra Combat Points for the round. The following round they are considered flat-footed, have a –4 attack penalty for all attacks, receive half their normal Combat Points (rounded down), and may not take the extra effort action. After the character goes through one round in this state, they return to normal.

Movement and Position

When using a grid to represent character's movement, the standard scale equates one inch (or a one square) to five feet in the game world. One round is six seconds.

Movement in Darkness

If a character moves when they can't see, such as in total darkness, their Combat Point cost to move is doubled.

Diagonals

When measuring distance, the first diagonal counts as 1 square, the second counts as 2 squares, the third counts as 1, the fourth as 2, and so on.

You can't move diagonally past a corner. You can move diagonally past an ally, but not an opponent unless you perform a Withdraw action.

You can also move diagonally past other impassable obstacles such as pits.

Passing Through

Sometimes a character can pass through an area occupied by another character or creature.

Friendly Character

A character can move through a square occupied by a friendly character.

Unfriendly Character

There are two ways to move through a square occupied by an enemy:

A character can attempt to slip through a square occupied by a resisting enemy using the Acrobatics skill.

A character can move through a square occupied by an unfriendly character who chooses not to or is unable to resist as if the character was friendly.

Square Occupied by Larger or Smaller Creature

Any creature can move through a square occupied by a creature three size categories larger or three categories smaller than it is.

Combat Modifiers

This section covers offensive and defensive modifiers provided by position.

Favorable and Unfavorable Conditions

Generally speaking, any situational modifier created by the attacker's position or tactics applies to the attack roll, while any situational modifier created by the defender's position, state, or tactics applies to the defender's DEF. The GM judges what bonuses and penalties apply using Table: Defense Modifiers and Table: Attack Roll Modifiers as guides.

Circumstance	Melee	Range
Attacker flanking defender	+2	+2
Attacker to the rear of defender	+4	+4
Attacker on higher ground	+1	+0
Attacker sitting or kneeling	–2	+1
Attacker prone	–4	+2
Attacker has not been seen yet	+2[1]	+2[1]

1 The defender loses any AGI bonus to Defense.

Table 51: Attack Roll Modifiers

Circumstance	Melee	Ranged
Defender prone	–2	+4[1]
Defender sitting or kneeling	–4	+2[1]
Defender stunned	–2[2]	–2[2]
Defender climbing	–2[2]	–2[2]
Defender flat-footed	+0[2]	+0[2]
Defender grappling (attacker not)	+0[2]	+0[3]
Defender pinned	–4[4]	+0[4]
Defender helpless (such as paralyzed, sleeping, or bound)	+0[2]	+0[2]
Defender has cover	— See Cover —	
Defender concealed or invisible	– See Concealment –	

1 Does not apply if target is adjacent to attacker. This circumstance may instead improve bonus to Defense granted by cover. See Cover, below.
2 The defender loses any AGI bonus to Defense.
3 Roll randomly to see which grappling combatant the character strikes. That defender loses any Dexterity bonus to Defense.
4 Treat the defender's AGI as 0 (-5 modifier).

Table 52: Defense Modifiers

Concealment

Concealment includes circumstances in which nothing substantially physical blocks a blow or shot but something interferes with an attacker's accuracy. Things that substantially physically blocks a blow can also provide concealment.

Concealment (Example)	Miss Chance
One-quarter (light fog; light foliage)	10%
One-Half (shadows; dense fog at 5')	20%
Three-quarters (dense foliage, fighting around a corner)	30%
Nine-tenths (near total darkness)	40%
Total (attacker blind; total darkness; smoke grenade; dense fog at 10', behind a drywall wall)	50%

Table 53: Concealment

Degree of Concealment Concealment is subjectively measured as to how well concealed the defender is. Examples of what might qualify as concealment of various degrees are given in Table: Concealment. Concealment always depends on the point of view of the attacker.

Concealment Miss Chance Concealment gives the subject of a successful attack a chance that the attacker missed because of the concealment. If the attacker hits, the defender must make a miss chance d% roll to avoid being struck. When multiple concealment conditions apply to a defender, use the one that would produce the highest miss chance. Do not add the miss chances together.

Cover

Cover is specifically provided by objects that would reasonably stop an attack, such as thick trees, solid stone walls, or sandbags. Cover provides a bonus to Defense. The more cover a character has, the bigger the bonus. In a melee, if a character has cover against an opponent, that opponent probably has cover against the character too. With ranged weapons, however, it is easy to have better cover than the opponent. The GM may impose other penalties or restrictions on attacks depending on the details of the cover.

Degree of Cover Cover is assessed in subjective measurements of how much protection it offers. The GM determines the value of cover. This measure is not a strict mathematical calculation because a character gains more value from covering the parts of their body that are more likely to be struck. If the bottom half of a character's body is covered, that only gives ¼ cover because most vital areas are still fully exposed. If one side or the other of a character's body is covered, the character receives ½ cover.

Degree of Cover (Example)	Cover Bonus to Defense	Reflex Saving Throws	Concealment
One-quarter (standing behind a 3' high wall)	+3	+2	—
One-half (fighting from around a corner or a tree; standing at an open window; behind a creature of same size)	+6	+4	10%
Three-quarters (peering around a corner or a big tree)	+9	+6[1]	20%
Nine-tenths (standing at an arrow slit; behind a door that's slightly ajar)	+15	+8[1]	30%
Total (on the other side of a solid wall, unable to be hit)	—	—	—

1 Half damage if save is failed; no damage if successful.

Table 54: Cover

Cover Defense Bonus Table: Cover gives the Defense bonuses for different degrees of cover. Add the relevant number to the character's Defense.

Cover Reflex Saving Throw Bonus Table: Cover gives the Reflex Saving Throw bonuses for different degrees of cover. Add this bonus to Reflex Saving Throws against attacks that affect an area. This bonus only applies to attacks that originate or burst out from a point on the other side of the cover.

Cover Concealment Bonus Table: Cover gives concealment when a character is behind an object. This concealment works exactly as regular concealment.

Striking the Cover Instead of a Missed Target If it ever becomes important to know whether the cover was actually struck by an incoming attack that misses the intended target, the GM should determine if the attack roll would have hit the protected target without the cover. If the attack roll falls within a range low enough to miss the target with cover but high enough to strike the target if there had been no cover, the object used for cover was struck. This can be particularly important to know in cases when a character uses another character as cover. In such a case, if the cover is struck and the attack roll exceeds the Defense of the covering character, the covering character takes the damage intended for the target. If the covering character has a AGI bonus to Defense or a dodge bonus, and this bonus keeps the covering character from being hit, then the original target is hit instead. The covering character has dodged out of the way and didn't provide cover after all. A covering character can choose not to apply their AGI bonus to Defense and/or their dodge bonus if the character so desires.

Special Initiative Actions

Usually a character acts as soon as they can in combat, but sometimes a character wants to act later, at a better time, or in response to the actions of someone else.

Delay

By choosing to delay, the character takes no action and then acts normally at whatever point in the Initiative count the character decides to act. When a character delays they voluntarily reduce their own Initiative result for the rest of the combat. When the character's new, lower Initiative count comes up later in the same round, the character can act normally. The character can specify this new Initiative result or just wait until some time later in the round and act then, thus fixing the character's new Initiative count at that point. A character cannot interrupt anyone's action with a delayed action (as a character can with a readied action; see below).

Delaying Limits The longest a character can delay before taking an action is until after everyone else has acted in the round. At that point, the delaying character must act or else forfeit any action in that round. If multiple characters are delaying, the one with the highest Initiative modifier (or highest AGI in case of a tie) has the advantage. If two or more delaying characters both want to act on the same Initiative count, the one with the highest Initiative modifier can go first. If two or more delaying characters are trying to go after one another, the one with the highest Initiative modifier can go last; the others must go first or lose their action for the round. If a character loses an action due to delaying, they may act on any count on the next turn. Again, the character cannot interrupt an action.

Ready

The ready action lets a character prepare to take an action later to interrupt another character. On the character's turn they prepare to take an action later if a specific trigger is met. Later in the round, if the readied action is triggered, the character takes their action before the triggering action. Readying does not provoke an AoO.

Readying an Action A character can ready an attack action or a move action that doesn't require them to move from their current location. To do so the character specifies the action they will take and the conditions under which the character will take it. Then, any time before the character's next action, the character may take the readied attack action in response to those conditions. The readied action occurs just before the event that triggers it. If the trigger is part of another character's actions, the readied action interrupts the other character. The other character continues their actions once the readied action is completed. The waiting character acts immediately ahead of the character whose action triggered the readied action. A character can move as normal, but only as long as the character doesn't spend the Combat Points needed to accomplish the readied action. A character may only ready one attack action. If the character comes to their next action and has not yet performed the readied action, the character doesn't get to take the readied action (though the character can ready the same action again). If the character takes their readied action in the next round before their regular turn comes up the character's Initiative count doesn't change.

Special Actions

This section covers explosives, attacking objects, and an assortment of other special actions a character can do.

Aid Another

In combat, a character can help a friend attack or defend by distracting or interfering with an opponent. If the character is in position to attack an opponent with which a friend of the character is engaged in melee combat, the character can attempt to aid the friend. The character makes an attack roll against DEF 10. If the character succeeds, they don't actually damage the opponent, but the character's friend gains either a +2 circumstance bonus against that opponent or a +2 circumstance bonus to DEF against that opponent (aiding character's choice) on the friend's next turn. This can only be done once per round.

Planted Explosives

A planted explosive is set in place with a timer or fuse determining when it goes off. No attack roll is necessary to plant an explosive; the explosive sits where it is placed until it is moved or goes off. When a planted explosive detonates, it deals its damage to all targets within the blast radius of the weapon.

Attack an Object

Sometimes a character needs to attack or break an object.

Strike an Object Objects are easier to hit than characters because they usually don't move, but many are tough enough to shrug off some damage from each blow.

Object Defense and Bonuses to Attack Objects are harder or easier to hit depending on their size and whether they are immobile or being held, carried, or worn by opponents. The base Defense of objects is shown on Table: Size and Defense of Objects.

Size (Example)	Defense
Colossal (jetliner)	–3
Gargantuan (army tank)	1
Huge (typical car)	3
Large (big door)	4
Medium (dirt bike)	5
Small (chair)	6
Tiny (College textbook)	7
Diminutive (paperback book)	9
Fine (pencil)	13

Table 55: Object Size and Defense

If a character attempts to make an attack against an inanimate, immobile object the character receives an automatic hit with a melee weapon, or a +5 bonus on their attack roll with a ranged weapon (all ranged weapons are firing single shot). An object being held, carried, or worn has a Defense equal to the above figure +10 + the opponent's AGI modifier. Striking a held, carried, or worn object provokes an AoO from the character who holds it. If a character has the Sunder feat, they don't incur an AoO for making the attempt.

Hardness Each object has hardness, a number that represents how well it resists damage. Whenever an object takes damage, subtract its hardness from the damage. Only damage in excess of its hardness is deducted from the object's hit points (See the below tables).

Hit Points An object's HP total depends on what it is made of or how big it is.

Object	Hardness	HP	Break TN
Lock			
Cheap	0	1	10
Average	3	5	15
High quality	5	10	20
High security	10	120	35
Ultra-high security	20	150	45
Manufactured Objects[1]			
Fine	0	1	10
Diminutive	0	1	10
Tiny	1	2	10
Small	3	3	12
Medium	5	5	15
Large	5	10	15
Huge	8	10	20
Gargantuan	8	20	30
Colossal	10	30	50
Weapons, diminutive and smaller size	1	10	30
Weapons, small size	2	15	30
Weapons, medium size	3	18	30
Weapons, large size	5	25	30
Weapons, huge and larger size	7	40	30
Rope	0	2	23
Simple wooden door	5	10	13
Strong wooden door	5	20	23
Steel door	10	120	35
Cinderblock wall	8	90	35
Chain	10	5	26
Handcuffs	10	10	30
Metal bars	10	15	30

1 Figures for manufactured objects are minimum values. The GM may adjust these upward to account for objects with more strength and durability.

Table 56: Object Hardness and HP

Substance	Hardness	Hit Points
Gypsum	0	1/inch of thickness
Paper	0	2/inch of thickness
Rope	0	2/inch of thickness
Plastic, soft	0	3/inch of thickness
Glass	1	1/inch of thickness
Ceramic	1	2/inch of thickness
Ice	0	3/inch of thickness
Plastic, hard	2	5/inch of thickness
Wood	5	10/inch of thickness
Aluminum	6	10/inch of thickness
Concrete	8	15/inch of thickness
Steel	10	30/inch of thickness

Table 57: Substance Hardness

Energy Attacks Acid and Concussive attacks deal normal damage to most objects. Electricity and fire attacks deal half damage to most objects; divide the damage by 2 before applying the hardness. Cold attacks deal ¼ damage to most objects; divide the damage by 4 before applying the hardness.

Ineffective Weapons The GM may determine that certain weapons just can't deal damage effectively to certain objects.

Immunities Objects are immune to non-lethal damage.

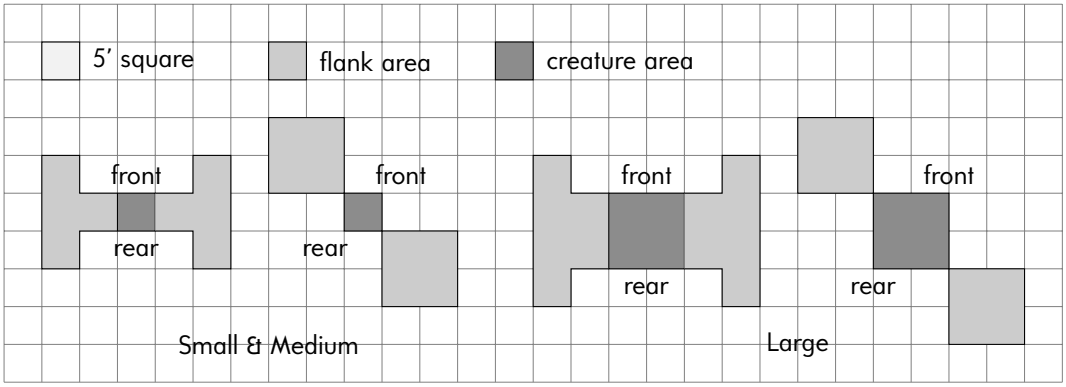
Saving Throws Unattended objects never make Saving Throws. They are considered to have failed their Saving Throws. An object attended by a character (being grasped, touched, or worn) receives a Saving Throw just as if the character themselves were making the Saving Throw.

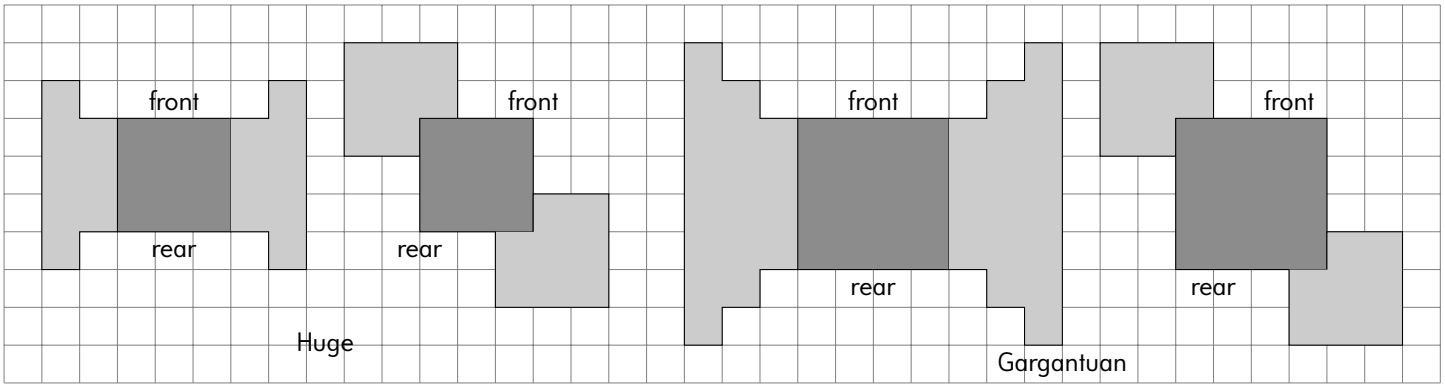
Breaking Objects When a character tries to break something with sudden force rather than by dealing damage, use a STR check to see whether they succeed. The TN depends more on the construction of the object than on the material. If an object has lost half or more of its hit points, the TN to break it decreases by 2.

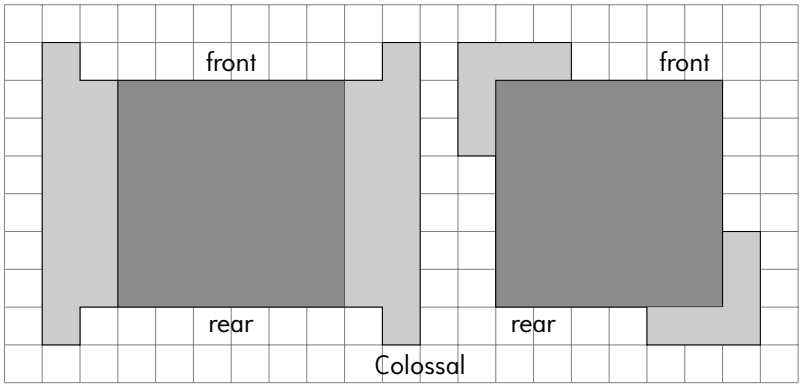
Repairing Objects Repairing damage to an object takes a full hour of work and appropriate tools. Without the proper tools, a character takes a –6 penalty on their Craft check. At the end of the hour, make a Craft (Structural) check [TN20]. Success restores 2d6 HP. If damage remains, the character may continue to make repairs for as many hours as it takes to restore all the object's HP.

Facing

All characters have a facing: the direction to the adjacent square the character or creature is pointing toward. This means that a Medium creature standing in a given square has eight possible facings. The three squares a Small or Medium character is pointing toward are its front area. The three squares behind it are its rear area. The squares to its left and right are its flanks. Larger characters have more squares to deal with, but they still face toward one of eight directions. Their front areas remain the squares in front of them (including those on the front corners); their rear areas remain the squares behind them (including those on the rear corners); and their flanks remain the squares directly to their sides.







Changing facing

As you move, you can freely change your facing, rotating your token before you step into each new square. In addition, you can change facing at the end of your move.

If you do not move during your turn, you may change facing once at any point during your turn for free. You can turn to face any direction you like but you cannot change facing more than once.

Normal Movement

You can move into any square in your front area at the normal movement cost. As you move you may change your facing as you enter each new square. Make it clear which way you're facing as you move if it matters (such as when enemies are near), and set your miniature's facing when you're done moving.

Moving Backward or Sideways

You'll usually turn your character in the direction of movement before making a move. As described above, you may freely make such changes in facing during movement. However, sometimes you'll want to move without changing your facing to avoid exposing your flank or rear area to an AoO while you move. It costs two squares of movement to enter a square on your flank or in your rear area.

Facing And Attacking

In general, a character can attack into any square in his front area without penalty. Characters who don't want to change their facing to point toward a foe can attack into their flank areas at a –5 penalty and into their rear areas at a –10 penalty.

Characters can make ranged attacks into any square beyond their front area without penalty. The penalties for making ranged attacks into flank and rear areas are the same as for melee combat.

Opponent Facing

Not only does your facing matter when you're attacking, but the facing of your opponent does as well. If you're attacking from a foe's flank area (or the squares beyond it, if you have a reach or ranged weapon), you get a +2 bonus on the attack roll. You don't need anyone opposite you on the other side of your foe. If you're attacking from a foe's rear area (or the squares beyond it), you get a +4 bonus on the attack roll.

Faceless Creatures Some creatures have no real facing because they can move, attack, and perceive foes equally well in every direction. Faceless creatures can move or attack into any adjacent square and they can't be flanked or attacked from the rear because they don't have flanks or rears.

Tiny and Smaller Creatures Tiny and smaller creatures don't have facing. They can move or attack in any direction and are otherwise treated as faceless.

Readied Actions

You can't ready an action to respond to a trigger that occurs in your rear area if you have to see it happen (such as a doorknob turning), but you can ready an action for a sound-based trigger (such as the click of latch opening).

Conditions Summary

If more than one condition affects a character, apply them all. If certain effects can't combine, apply the most severe effect. If a character is already suffering from an identical summary, the new summary's length will not add to previous one unless the duration is greater, and only the difference in duration will be added.

Ability Damaged

The character has temporarily lost 1 or more ability score points. Lost points return at a rate of 1 per day unless noted otherwise by the condition dealing the damage. A character with STR 0 falls to the ground and is helpless. A character with DEX 0 is paralyzed. A character with CON 0 is dead. A character with INT, WIS, or CHA 0 is unconscious. Ability damage is different from penalties to ability scores, which go away when the conditions causing them go away.

Ability Drained

The character has permanently lost 1 or more ability score points. A character with STR 0 falls to the ground and is helpless. A character with DEX 0 is paralyzed. A character with CON 0 is dead. A character with INT, WIS, or CHA 0 is unconscious.

Blinded

The character cannot see. He takes a –2 penalty to Defense, loses his DEX bonus to Defense (if any), movement cost is doubled, and takes a –4 penalty on Perception checks and on most STR and DEX based skill checks. All checks and activities that rely on vision automatically fail. All opponents are considered to have total concealment to the blinded character. Characters who remain blinded for a long time grow accustomed to these drawbacks and can overcome some of them.

Confused

The character is puzzled by something they have seen or heard, and are therefore hesitant on completing actions. All of a confused character's action costs are increased by 3 Combat Points.

Dazed

The creature is unable to act normally. A dazed creature can spend only 1/3rd of their total combat points, and is flat footed. A dazed condition typically lasts 1 round.

Dead

The character's CHP have been reduced to –10, his CON is reduced to 0, or he is killed outright by an effect. The character's soul/aura/nothing leaves his body. Dead characters cannot benefit from normal healing. A dead body decays normally unless preserved.

Deafened

A deafened character cannot hear. They take a –4 penalty on Initiative checks and automatically fails Perception checks that involve hearing. Characters who remain deafened for a long time grow accustomed to these drawbacks and can overcome some of them.

Disabled

A character with 0 CHP, or one who has negative core hit points but has become stable and conscious, is disabled. The character can only spend 5 Combat Points. Performing any action the game master deems strenuous deals 1 point of damage after the completion of the act. Unless the action increased the disabled character's hit points, they are now in negative CHP and dying. A disabled character with negative CHP recovers CHP naturally if they are being helped. Otherwise, each day they have a 10% chance to start recovering CHP naturally (starting with that day); otherwise, they lose 1 CHP. Once an unaided character starts recovering CHP naturally they are no longer in danger of losing hit points (even if their current hit points are negative).

Dying

A dying character is unconscious and near death. They have between –1 and –9 CHP. A dying character can take no actions and is unconscious. At the end of each round (starting with the round in which the character dropped below 0 CHP), the character loses 1 HP. If a dying character reaches –10 CHP they are dead.

Entangled

The character is ensnared. Being entangled impedes movement, but does not entirely prevent it unless the bonds are anchored to an immobile object or tethered by an opposing force. An entangled creature moves at twice the Combat Point cost and takes a –2 penalty on all attack rolls and a –4 penalty to DEX.

Extremity Damaged

The character has one or more limbs damaged from combat. Refer to the below chart for extremity damage effects.

- If the character is hit in the arm they take a –6 penalty to any skill or ability check using that arm.
- If the character is hit in the hand they take a –12 penalty to any skill or ability check using that hand and cannot use weapons in that hand.
- If the character is hit in the leg the Combat Point cost to move is doubled.
    - If both legs are hit they drop prone, can only spend enough Combat Points to move 5' every round, and cannot pick themselves up, but can otherwise spend Combat Points as normal.
- If the character is hit in the foot the Combat Point cost to move is tripled.
    - If both feet are hit they drop prone, can only spend enough Combat Points to move 5' every round, and cannot pick themselves up, but can otherwise spend Combat Points as normal.
- If a character is hit in the head and is not wearing a helmet that protects against the damage, the attack is automatically considered to be a critical strike and they are stunned for 1d3 rounds.

Exhausted

If they work on a project, such as improving their ability scores, crafting, or scrbing spells, for 12 hours or more, they become exhausted. An exhausted character moves at twice the Combat Point cost and takes a –6 penalty to STR and DEX. After 1 hour of complete rest an exhausted character becomes fatigued. A fatigued character becomes exhausted by doing something else that would normally cause fatigue.

Fatigued

If a character works on a project, such as improving their ability scores, crafting, or scrbing spells, for 8 hours they become fatigued. An fatigued character takes a –2 penalty to STR and DEX. Doing anything that would normally cause fatigue causes the fatigued character to become exhausted. After 8 hours of complete rest, fatigued characters are no longer fatigued.

Flat-Footed

A character who has not yet acted during a combat is flat-footed and is not yet reacting normally to the situation. A flat-footed character loses his DEX bonus to Defense (if any) and cannot make an AoO.

Frightened

A frightened creature flees from the source of its fear as best it can. If unable to flee, it may fight. A frightened creature takes a –2 penalty on all attack rolls, Saving Throws, skill checks, and ability checks. A frightened creature can use special abilities, to flee; indeed, the creature must use such means if they are the only way to escape. Frightened is like Shaken, except that the creature must flee if possible. Panicked is a more extreme state of fear.

Grappling

Engaged in wrestling or some other form of hand-to-hand struggle with one or more attackers. A grappling character can undertake only a limited number of actions. He does not threaten any squares and loses his DEX bonus to Defense (if any) against opponents he isn't grappling. See Grapple.

Helpless

A helpless character is paralyzed, held, bound, sleeping, unconscious, or otherwise completely at an opponent's mercy. A helpless target is treated as having a DEX of 0 (–5 modifier). Melee attacks against a helpless target get a +4 bonus (equivalent to attacking a prone target). Ranged attacks receive no special bonus against helpless targets.

Hungry

A hungry character is a character who hasn't eaten in a few days and is unable to focus due to the hunger pains. Hungry characters takes a –4 penalty on all skill checks and a –2 penalty on all Saving Throws.

Inebriated

Drunken and consumed too much alcohol or drugs. An inebriated character takes a –4 on all attack rolls, a –3 to their Dexterity score and their Combat Point cost to move is doubled.

Invisible

Visually undetectable. An invisible creature gains a +2 bonus on attack rolls against sighted opponents and ignores its opponent's DEX bonuses to Defense (if any).

Knocked Down

Depending on their size, creatures can be knocked down by winds of high velocity. Creatures on the ground are knocked prone by the force of the wind. Flying creatures are instead blown back 1d6×10'.

Nauseated

Experiencing stomach distress. Nauseated creatures are unable to spend Combat Points on attacks, speaking, or do anything else requiring attention. The only action such a character can spend Combat Points on are move actions.

Panicked

A panicked creature must drop anything it holds and flee at top speed from the source of its fear, as well as any other dangers it encounters, along a random path. It can't take any other actions. In addition, the creature takes a –2 penalty on all Saving Throws, skill checks, and ability checks. If cornered, a panicked creature cowers. A panicked creature can use special abilities to flee; indeed, the creature must use such means if they are the only way to escape. Panicked is a more extreme state of fear than shaken or frightened.

Paralyzed

A paralyzed character is frozen in place and unable to move or act. A paralyzed character has effective DEX and STR scores of 0 and is helpless, but can take purely mental actions. A winged creature flying in the air at the time that it becomes paralyzed cannot flap its wings and falls. A paralyzed swimmer can't swim and may drown. A creature can move through a space occupied by a paralyzed creature—ally or not. Each square occupied by a paralyzed creature, however, counts as 2 squares.

Pinned

Held immobile (but not helpless) in a grapple.

Prone

The character is on the ground. An attacker who is prone has a –4 penalty on melee attack rolls, but a +2 to ranged attack rolls. A defender who is prone gains a +4 bonus to Defense against ranged attacks, but takes a –2 penalty to Defense against melee attacks.

Rattled

A rattled character is visibly disturbed, and can barely function. A rattled character takes a –4 penalty on attack rolls, Saving Throws, skill checks, and ability checks.

Shaken

A shaken character takes a –2 penalty on attack rolls, Saving Throws, skill checks, and ability checks. Shaken is a less severe state of fear than frightened, rattled or panicked, but worse than unnerved.

Sickened

The character takes a –2 penalty on all attack rolls, melee weapon damage rolls, Saving Throws, skill checks, and ability checks.

Stable

A character who was dying but who has stopped losing hit points and still has negative hit points is stable. The character is no longer dying, but is still unconscious. If the character has become stable because of aid from another character (such as a Treat Injury check), then the character no longer loses hit points. He has a 10% chance each hour of becoming conscious and disabled (even though his hit points are still negative). If the character became stable on his own and hasn't had help he is still at risk of losing hit points. Each hour, he has a 10% chance of becoming conscious and disabled. Otherwise he loses 1 hit point.

Starving

A starving character is a character who hasn't eaten in a great many days and is being effected seriously by the lack of food. Hungry characters takes a –9 penalty on all skill checks, a –4 penalty on all Saving Throws, a –2 penalty on all attack rolls, and takes a –3 penalty to STR and DEX.

Stunned

A stunned creature can only spend half of their Combat Points, rounded down, takes a –2 penalty to Defense, and loses his DEX bonus to Defense (if any).

Unconscious

Knocked out and helpless. Unconsciousness can result from having current CHP between –1 and –9 or from losing all XHP due to a non-lethal attack.

Unnerved

An unnerved character has lost their demeanor. They take a –1 penalty on attack rolls, Saving Throws, skill checks, and ability

checks. Unnerved is a less severe state of fear than shaken, frightened, or panicked.

Environments

Darkness and Light

It's a rare mission that doesn't end up in the dark somewhere and characters need a way to see. See Table: Light Sources for the radius that a light source illuminates and how long it lasts. The light sources listed are for light being broadcast in a circle from their origin.

Item	Light	Duration
Candle	10'	12 hours
Torch	20'	2 hours
Lantern	40'	1 day
Match	10'	1 round
Lighter	10'	1 hour
Road Flare	40'	1 hour
Chemical Light Stick	10'	6 hours

Table 58: Light Sources

Darkness and light levels are sectioned off into four levels, stated below.

- **Fully Illuminated** Fully illuminated light means everything in the area or room is relatively visible, with a adequate light source. There are no penalties when in a fully illuminated environment. A creature can see for miles in fully illuminated light.
- **Shadows** Shadow light means that there are shadows that are cast, usually by a singular, weak light source. All targets within shadow light have 20% concealment. A creature can see for 100' in shadows.
- **Near Total Darkness** Near total darkness means that there is a light source, but it may be far away, or extremely weak. All targets within near total darkness light have 40% concealment. A creature can see for 50' in near total darkness.
- **Total Darkness** Total darkness means there is no light source whatsoever to illuminate the area. All targets within total darkness light have 50% concealment. A creature can't see at all in total darkness.

All light sources provide full illumination within their listed range, shadows within 2x their range, and near total darkness within 3x of their range.

Sight and Types of Visions

Darkness and sight can be modified in a number of ways. Below are the various types of Vision a character can have or possess through racial abilities, or through equipment.

- **Standard Vision** Standard vision is the base vision for most, if not all creatures. It allows them to perceive the world around them through sight. Unless otherwise obstructed or darkened by light levels, vision is assumed to be of infinite range, though perception penalties occur based on the distance.
- **Thermal Vision** Thermal vision works by viewing the heat signatures of various objects in relation to the objects around them, making warmer objects such as creatures stand out. Thermal vision negates all vision penalties for darkness and smoke with regard to people, creatures, and objects warmer than the surrounding scenery, within its stated range.
- **Low Light Vision** Low light vision is the ability to recognize color and read in near total darkness, within its stated range. It functions as standard vision in shadows, and as shadows in near total darkness.
- **Darkvision** Darkvision is the ability to see in total darkness, but only in black and white, within its stated range.
- **Blindsight** Blindsight is the ability to perceive targets and fight in total lack of visibility through environment such as smoke or total darkness, or through a lack of sight from blindness. It has a range of 35'.

Heat and Cold

Temperature Ratings

Extremely Cold Extreme cold temperature is any temperature below -90C/-130F. These temperatures are unsurviveable for long periods of time without a spacesuit, parka, or a biology that is suited for the cold.
Very Cold Very cold temperature is any temperature between -89C/-128F and -35C/-31F.Very Cold Weather clothing is highly recommended, with protective equipment such as overcoats, and parkas to help ward off the cold.
Cold Cold temperature is any temperature between -34C/-29F and 10C/50F. Cold Weather clothing is recommended, but mild clothing with a coat, overcoat or parka will suffice.
Mild Mild temperature is any temperature between 11C/51F and 27C/80F. Mild temperature clothing is the standard set of clothing, including pants, some shorts, dresses, skirts and the like.
Hot Hot temperature is any temperature between 28C/81F and 35C/95F. Hot temperature clothing is recommended, as well as drinking lots of fluids to stay hydrated.
Very Hot Very Hot temperature is any temperature between 36C/96F and 44C/111F. Very hot temperature clothing is very light, and has to breathe to not hold heat at all against the body. Fluids are necessary to avoid heat stroke.
Extremely Hot Extremely Hot Temperature is any temperature above 45C/113F. These temperatures are unsurviveable for long periods of time without a spacesuit, or a biology that is suited for the heat.

A character's clothing and armor may protect them from certain temperature ranges.

If a character is in a hot or cold environment not counteracted by their armor or clothing, they must attempt a Fortitude Saving Throw [TN15 (+1 for each previous check)] depending on how many steps away from their counteracted range the environment is. For one step removed, the Saving Throw must be attempted every hour and the character loses 1d4 XHP or CHP on failure. For two steps removed, the Saving Throw must be attempted every ten minutes and the character loses 1d6 XHP or CHP on failure. For three or

more steps removed, the Saving Throw must be attempted every minute and the character loses 2d6 XHP or CHP on failure.

Damage taken from Hot and Cold environments cannot be recovered until the character counteracts or escapes from the inclement temperature, and as soon as they suffer it they are considered fatigued. If a character takes no action besides counteracting the heat or cold, by sitting in the shade or huddling for warmth or other such activities, they can reduce the severity of the environmental damage by one step.

Catching on Fire

Characters exposed to open flames might find their clothes, hair, or equipment on fire. Characters at risk of catching fire are allowed a Reflex Saving Throw [TN15] to avoid this fate.

If a character's clothes or hair catch fire, they take 2d6 points of fire damage immediately. In each subsequent round, the burning character must make another Reflex Saving Throw. Failure means they take another 2d6 points of fire damage that round. Success means that the fire has gone out. That is, once the character succeeds at the Saving Throw, they are no longer on fire.

A character on fire may automatically extinguish the flames by jumping into enough water to douse themselves. If no body of water is at hand, rolling on the ground or smothering the fire with blankets or the like permits the character another Saving Throw with a +4 bonus.

Starvation and Thirst

Sometimes characters might find themselves without food and water. In normal climates characters need at least 4 units of fluids and 8 NV worth of food per day to avoid the threat of starvation. In very hot climates characters need two or three times as much water to avoid dehydration. A character can go without water for two days plus a number of hours equal to their CON score * 2. After this, the character must make a CON check each hour [TN10 (+1 for each previous check)] or take 1d6 points of CHP damage. A character can go without food for two days in discomfort. After two days, the character becomes hungry. Every day the character is hungry, they must make a CON check [TN10 (+1 for each previous check)] or sustain 1d3 points of CHP damage. If a character does not eat for three days while hungry, they are now starving. Every day the character is starving, they must make a CON check [TN12 (+2 for each previous check)] or sustain 2d3 points of CHP damage.

If a character eats at least 8 NV worth of food while starving or hungry, the status is removed. Damage from thirst or starvation cannot be recovered until the character receives water or food, as needed.

Suffocation and Drowning

A character in an airless environment (underwater, vacuum) can hold their breath for a number of rounds equal to their CON score. After this period of time the character must make a CON check [TN10] every round to continue holding their breath. Each round, the TN of the CON check increases by 1. When the character fails one of these CON checks they begin to suffocate or drown. In the next round the character falls unconscious. In the following round, the character is considered dying, with -5 CHP. In the third round after failing the check the character dies of suffocation or drowning.

Smoke

Characters breathing heavy smoke or similar toxic gases must make a Fortitude Saving throw [TN10 (+1 for each previous check)], each round or spend that round choking and coughing. Characters who choke for 2 consecutive rounds take 1d6 points of damage. Smoke also obscures vision, giving one-half concealment (20% miss chance) to characters within it.

Strangulation

When a character is strangled by an instrument or an attacker, use the rules below. A character can strangle or choke a target of the same size category or one size category larger or smaller. The strangling attempt incurs an Attack of Opportunity. To begin the choke, the attacker must succeed at an opposed grapple check. If the grapple succeeds, the attacker can choose to deal normal unarmed damage as well as choke the target. The target can hold his of her breath for a number of rounds equal to their CON score. After this period of time, the target must make a CON check [TN10 (+1 for each previous check)] every round to continue holding their breath. The target begins to suffocate on a failed check (see Suffocation and Drowning). If at any time the target breaks free or slips free of the grapple the stranglehold is broken (although any damage that was dealt remains). Note that a grappled target who is not pinned can use a melee attack to strangle their attacker.

Falling

A character takes 1d6 points of bludgeoning damage for every 10' of a fall, to a maximum of 100d6 points of bludgeoning damage. If the character succeeds on a Reflex Saving Throw [TN10 +1 for each 10' fallen], this damage is halved. If the Saving Throw fails full damage is applied. A character can make an Acrobatics check [TN15] to treat a fall as if it were 10' shorter when determining the damage and Reflex Saving Throw TN required by the fall.

A character begins to fall immediately the moment they are put or put themselves in a situation in where they would fall.

Falling Objects

Objects that fall upon characters (or creatures or vehicles) deal damage based on their size and the distance fallen as noted on Table: Damage from Falling Objects. Objects deal the initial damage given in Table: Damage from Falling Objects if they fall 10' or less. An object deals an additional 1d6 points of bludgeoning damage for every 10' increment it falls beyond the first (to a maximum of 200d6 points of bludgeoning damage). Objects of Fine size are too small to deal damage, regardless of the distance fallen. A successful Reflex Saving Throw indicates that the target takes half damage. The size of the falling object determines the Saving Throw TN. If the Saving Throw fails by 10 or more, and the object is at least three size categories larger than the character, the character is pinned under the fallen object. A pinned character cannot move but is not helpless. The character can make a STR check to lift the object off of themselves or an Acrobatics check [TN25] to get out from underneath. The GM can modify the TNs for these checks based on the circumstances.

Object Size	Examples	Initial Damage	Reflex Save TN	STR Check TN
Fine	Penny	0	—	—
Diminutive	Paperweight	1	0	—
Tiny	Wrench	1d3	5	—
Small	Vase	1d4	10	5
Medium	Briefcase	1d6	15	10
Large	Garbage can	2d6	20	20
Huge	Oil barrel	4d6	25	25
Gargantuan	Piano	8d6	30	30
Colossal	Vehicle	10d6	35	40

Table 59: Falling Objects

Poison

When a character takes damage from an attack with a poisoned weapon, consumes a poisonous substance, inhales a poisonous gas, or is otherwise poisoned the character must make a Fortitude Saving Throw. If the character fails, they take the poison's full initial damage (usually ability damage). If they succeed, they take half of the initial damage, rounded up. The character faces secondary damage 30 seconds later. This secondary damage also requires a Fortitude Saving Throw to avoid by half of the effect ammount or the duration, whichever is listed. The effects from poison start to subside after 1 day the poison was applied, and the affected character heals ability damage using the healing ability damage rules.

Poisons are detailed in the Craft (Chemical) Skill description. Poisonous liquids are usually administered through injection or by application to a weapon. Poisonous gases must be inhaled to be effective. Poisonous solids are usually ingested with food or drink.

Poison Immunity

Creatures with natural poison attacks are immune to their own poison. Nonliving creatures and creatures without metabolisms are immune to poison. Certain kinds of creatures are immune to poison, as detailed in their descriptions, though it is conceivable that a special poison could be synthesized specifically to harm them.

Poisons	Type	Save TN	Damage Primary / Secondary	Restr
Arsenic	Solid	15	1d4 STR / 2d4 CON	R
Atropine (2)	Liquid	13	1d6 DEX / 1d6 STR	R
Blue Vitriol (2)	Liquid	12	1d2 CON / 1d4 CON	R
Chloral hydrate	Solid	15	1d6 DEX / Unconscious 1d3 hours	R
Cyanide	Liquid	16	1d6 CON / 2d6 CON/ 2d6 CON	M&P
Cyanogen	Gas	19	1d4 DEX / 1d6 CON/ 1d6 CON	M&P
DDT	Gas	17	1d2 STR / 1d4 STR	I
Lead Arsenate (gas)	Gas	12	1d2 STR / 1d4 CON	R
Lead Arsenate (solid)	Solid	12	1d2 STR / 1d4 CON	R
Mustard gas	Gas	17	1d4 CON / 2d4 CON/ 2d4 CON/ 2d4 CON/ 2d4 CON	M&P
Paris green (gas)	Gas	14	1d2 CON / 1d4 CON/ 1d4 CON	None
Paris green (solid)	Solid	14	1d2 CON / 1d4 CON/ 1d4 CON	None
Sarin	Gas	18	1d4 CON / 2d4 CON/ 2d4 CON	I
Strychnine	Liquid	19	1d3 DEX / 2d4 CON/ 2d4 CON	R
Tear gas	Gas	15	Both—Blinded and Stunned 2d4 rounds	R
Tranquilizer	Liquid	15	1d6 DEX / Inebriated 1d6 rounds/ Fatiuged 1d6 rounds/ Exausted 1d2 hours	R
VX	Gas/Solid	30	1d6 CON / 2d6 CON / 2d6 CON / 2d6 CON / 2d6 CON	I

Table 60: Poison

Disease

When a character is exposed to a treatable disease, the character must make an immediate Fortitude Saving Throw. The victim must make this roll when they come into contact with an infectious carrier, touches an item smeared with diseased matter, consumes food or drink tainted with a disease, or suffers damage from a contaminated attack. If the character succeeds the disease has no effect on them—the character's immune system fights off the infection. If the character fails the Saving Throw they take damage after an

Disease	Type	Fort Save TN	Incubation Period	Initial Damage	Secondary Damage
Anthrax	Gas/Liquid	16	1d2 days	1 CON	1d4 CON*
Smallpox	Gas/Contact	15	2d4 days	1 STR and 1 CON	1d2 STR and 1d2 CON
Pneumonia	Gas	12	1d4 days	1 STR	1d3 STR and 1d3 CON
Hantavirus	Liquid	14	1 day	1d2 STR	1d2 STR* and 1d2 CON*
Necrotizing Fasciitis	Contact	13	1d6 days	1 CON	1d3 CON*
West Nile virus	Liquid	12	1d4 days	1 DEX and 1 CON	1d2 DEX and 1d2 CON*
Gastroenteritis	Solid	13	1 day	1 STR and 1 DEX	1 STR and 1d3 DEX
Bubonic Plague	Contact	17	1d6 days	1d3 CON	1d6 CON and 1d3 STR
Cholera/Dysentery	Solid	14	1 day	Sickened	1 DEX and 1 STR
Food Poisoning	Solid	15	1d4 days	Sickened	1d2 DEX

* If damage is sustained, make a second Saving Throw to avoid 1 point being permanently drained (instead of damaged).

Table 61: Disease

incubation period; once per day thereafter, the character must succeed at a Fortitude Saving Throw to avoid secondary damage. Two successful Saving Throws in a row indicate that the character has fought off the disease and recovers, taking no more damage.

The characteristics of some treatable diseases are summarized below.

Type

The disease's method of delivery—ingested, inhaled, or via an injection—and the TN needed to save. Most diseases that are inhaled can also be ingested (and vice versa).

Incubation Period

The amount of time before initial damage takes effect if the victim fails their Fortitude Saving Throw.

Initial Damage

The damage the victim takes after the incubation period.

Secondary Damage

The amount of damage the character takes one day after taking initial damage if they fail a second Saving Throw. This damage is taken each day the Saving Throw fails.

Acid

Corrosive acids deal damage each round of exposure. The amount of damage varies depending on the acid's strength as noted below.

Acid Strength	Splash Attack*	Total Immersion*
Mild	2d6	4d6
Potent	4d6	8d6
Concentrated	6d6	12d6

*Damage per round of exposure.

Table 62: Acid Damage

Acid damage from an attack reduces hit points. A character fully immersed in acid takes potentially more damage per round of exposure than a character splashed with acid. The fumes from most acids are inhaled poisons. Those who come within 5' of a large body of acid must make a Fortitude Saving Throw [TN15] or take 1 point of temporary CON damage. A second Saving Throw must succeed 1 minute later to avoid taking another 1d4 points of CON damage.

Electricity

Electrical hazards come in many forms, including stun guns, downed power lines, and electric security fences. Table: Electricity Damage gives damage values for various electrical hazards based on relative voltage. A character can make a Fortitude Saving Throw to reduce the damage by half. If that character is insulated from the current, a successful Saving Throw indicates that no damage is suffered.

Type	Examples	Damage	Fort Save TN
Jolt	Car battery	1d3	10
Low voltage	Fuse box, electrical socket	3d6	15
Medium voltage	Industrial transformer, electric fence	10d6	20
High voltage	Power line, electric chair, lightning	15d6	25

Table 63: Electricity Damage

Weightless & Microgravity

Weightless and microgravity environments function very differently from normal gravity areas. Regardless of how much weight a character is carrying in a weightless or microgravity environment, they are never encumbered. Their movement cost to walk or move while crouched is doubled.

Vehicle Movement and Combat

For simply traveling from point to point, the vehicle used is largely a matter of personal style and finances. Skill checks are only required in extraordinary circumstances. These rules are primarily focused on ground vehicles: cars, trucks, and light military vehicles. The rules can be modified for heavier armored vehicles, and aircraft.

Characters in Vehicles

A character in a vehicle fills one of several possible roles, which determines what the character can do.

Driver The driver of the vehicle controls its movement. Most vehicles have only one position from where the vehicle can be driven, so the person seated there is the driver. Driving a vehicle costs a minimum of 6 Combat Points, which means that the driver may be able to do something else with their Combat Points. There can be only one driver in a vehicle at one time.

Copilot A copilot can help the driver by taking an aid another action. The copilot must be seated in a location where they can see the road and advise the driver (in a car, this generally means the front passenger seat). Aiding the driver costs 6 Combat Points. A vehicle can have only one copilot at a time. A copilot can also drive the vehicle if the driver cannot or chooses not to, provided there is a second set of controls at the copilot's seat (usually true in aircraft, but not ground vehicles).

Gunner Some vehicles have built-in weapons. If such a weapon is controlled from a location other than the driver's position, a character can man that position and become the gunner. A vehicle can have as many gunners as it has gunner positions.

Passenger All other personnel aboard the vehicle are considered passengers. Passengers have no specific role in the vehicle's operation, but may be able to fire weapons from the vehicle or take other actions.

Scale

These rules use two scales. If the encounter involves both vehicles and characters on foot, use character scale. If the scene involves only vehicles and they're likely to move at much higher speeds than characters or creatures on foot, use vehicle scale.

Character Scale

Character scale is identical to the standard scale: It's carried out on a grid in which each square equals 5 feet. In character scale, most vehicles are large enough to occupy multiple squares on the map grid. How many squares a vehicle occupies is specified in the vehicle's description.

When moving a vehicle, count the squares from the vehicle's rear. When turning, pivot the vehicle on the rear square toward the direction which it is turning. When firing weapons, count squares from the location of the weapon. In character scale, more than one ground vehicle cannot occupy the same square.

Vehicle Scale

In Vehicle scale, grids are not used. Instead the GM will describe the location of objects and obstacles, in reference to the character's location. It is important to use numerical feet values for anything the characters will target, and reference how long it will take the characters to reach a particular obstacle, based on their speed.

Vehicle Sizes

Vehicles use the same size categories as characters and creatures, as shown on Table: Vehicle Sizes. The vehicle's size modifier applies to its Initiative modifier, maneuver modifier, and Defense. The size modifier is already included in the vehicle statistics.

Vehicle Size	Size Mod.	Examples
Colossal	–8	Jumbo Jets, Semi-trucks
Gargantuan	–4	IFVs, APCs, and most aircraft
Huge	–2	Mid-sized cars, Luxury cars
Large	–1	Compact cars, Compact trucks
Medium	+0	Motorcycles, Toy cars, and Mini cars

Table 64: Vehicle Sizes

Facing and Firing Arcs

When dealing with vehicles, the vehicle's facing (the direction its pointing) is important. Facing indicates the direction in which the vehicle is traveling, assuming it isn't moving in reverse. It can also determine which weapons aboard the vehicle can be brought to bear on a target.

A weapon built into a vehicle can be mounted to fire in one of four directions: forward, aft (rear), right, or left, or be built into a partial or full turret. A partial turret lets a weapon fire into three adjacent fire arcs (such as forward, left, and right), while a full turret lets it fire in any direction. For vehicles with weapons, a weapon's arc of fire is given in the vehicle's description.

Getting Started

Most vehicles can be entered with 4 Combat Points and started with 4 more Combat Points. An exception is noted in a vehicle's description when it applies.

Vehicle combat differs from Character combat, in that there are two phases per round, the Movement Phase and the Attack Phase.

Initiative

Initiative is determined by rolling Initiative for each vehicle, using the vehicle's Initiative modifier.

Movement Phase

The movement phase is the phase where the vehicles move. The driver spends 6 Combat Points moving the Vehicle's speed, increasing or decreasing the speed category, and performing maneuvers. Initiative order goes as normal, and once every vehicle in combat has moved, the Attack Phase begins.

Attack Phase

The attack phase is the phase that allows both the vehicle and its occupants to attack. The characters may use as many Combat Points as they possess attacking or shifting within the vehicle.

Vehicle Speed

Vehicle speed is expressed in eight categories: Stationary, Observing Speed, Cruising Speed, Alley Speed, Avenue Speed, Street Speed, Highway Speed, and All Out Speed. Each of these speed categories represents a range of possible movement (see Table: Vehicle Speeds and Modifiers). Each movement phase, a vehicle moves according to its current speed category.

Speed	Req Turn Dist	Def Mod	Check/Roll Mod
Stationary	—	+0	—
Observing	—	+0	+0
Cruising	5'	+1	+0
Alley	10'	+1	–1
Avenue	15'	+2	–2
Street	20'	+3	–4
Highway	30'	+5	–6
All Out	35'	+7	–8

Table 65: Vehicle Speed

Declaring Speed

At the beginning of their action, a driver must declare their speed category for the round. The driver can choose to go one category faster or slower than the vehicle's speed category at the end of the previous round. A stationary vehicle can change to observing speed in either forward or reverse. Most vehicles cannot go faster than alley speed in reverse. Not all vehicles can reach all speeds, and some vehicles can skip speeds with upgrades.

- **Stationary** The vehicle is motionless.
- **Observing Speed** The vehicle is rolling at a very slow speed, usually used to survey areas. It tops out at about 15 miles per hour.
- **Cruising Speed** The vehicle is moving at a brisk pace, faster than what would be moved to observe, often used in parking lots and school zones. This speed tops out at about 30 miles per hour.
- **Alley Speed** This speed is used for safely maneuvering a vehicle in tight spaces, such as alleys and parking garages. It tops out at about 45 miles per hour.
- **Avenue Speed** This speed is for open roads at a decent speed, up to about 60 miles per hour.
- **Street Speed** The vehicle is traveling at a moderate speed, up to about 75 miles per hour.
- **Highway Speed** The vehicle is moving at a typical highway speed, up to about 90 miles per hour.
- **All Out Speed** The vehicle is traveling extremely fast, more than 110 miles per hour.

The Effects of Speed

A fast-moving vehicle is harder to hit than a stationary one but is also harder to control and to attack from. As shown on Table: Vehicle Speeds and Modifiers, when a vehicle travels at street speed or faster, it gains a bonus to Defense. However, that speed brings along with it a penalty on all skill checks and attack rolls made by characters aboard the vehicle, including Drive checks to control the vehicle and attacks made from it.

Driving a Vehicle

Driving a vehicle cost 6 Combat Points, taken by the vehicle's driver. During their move action the driver moves the vehicle a distance within its speed category. The driver can attempt maneuvers to change the vehicle's course or speed. These maneuvers can be attempted at any point along the vehicle's route.

The two kinds of vehicle movement are simple maneuvers and stunts:

Simple Maneuvers

A simple maneuver, such as a 45-degree turn, is easy to perform. Each is free and can be taken as many times as the driver likes while they move the vehicle for no Combat Point cost. However, simple maneuvers do cost movement, so a vehicle that makes a lot of simple maneuvers will not get as far as one going in a straight line. Simple maneuvers do not require the driver to make skill checks.

Stunts

Stunts are difficult and sometimes daring maneuvers that enable a driver to change their vehicle's speed or heading more radically than a simple maneuver allows. A stunt costs 6 Combat Points. Stunts always require Drive checks.

Simple Maneuvers

During a vehicle's movement, the driver can perform any one of the following maneuvers:

45° Turn

Any vehicle can make a simple 45° turn as part of its movement. The vehicle must move forward at least a number of feet equal to its required turn distance (shown on Table: Vehicle Speeds and Modifiers) before it can turn. After the turn, the vehicle must move at least a number of feet equal to its required turn distance.

Ram

At character scale, a driver does not have to perform a maneuver to ram another vehicle, the driver only needs to drive the vehicle into the other vehicle, and a collision occurs (see Collisions and Ramming).

At vehicle scale, however, more than one vehicle can occupy the same square and not collide, so ramming another vehicle requires a simple maneuver. The driver moves their vehicle into the other vehicle and states that they are attempting to ram. Resolve the ram as a collision except that the driver of the target vehicle can make a Reflex Saving Throw [TN15] to reduce the damage to both vehicles by half.

Stunts

Stunts are maneuvers that require a Drive check to perform successfully. Unsuccessful stunts often result in the vehicle ending up someplace other than where the driver intended. When this happens, the vehicle collides with any objects that are in its path. Remember that the check/roll modifier from Table: Vehicle Speeds and Modifiers affects all Drive checks made by the driver and attack rolls made by all occupants of the vehicle.

Avoid Hazard

Vehicle combat rarely occurs on a perfectly flat, featureless plain. When a vehicle tries to move through a square occupied by a hazard the driver must succeed on a Drive check to avoid the hazard and continue moving.

Structures simply cannot be avoided. Also, if a driver cannot make a check (if they have used all their Combat Points for the round in performing other stunts) they automatically fail to avoid the hazard. In such cases, a collision occurs.

The TN to avoid a hazard varies with the nature of the hazard.

On a failed check, the vehicle hits the obstacle. An oil slick forces the drive to make a Drive check [TN18] to retain control of the vehicle. Failing to avoid an object results in a collision with the object.

Caltrops Caltrops are four-pronged steel spikes designed so that one prong is pointing up when the caltrop rests on a surface. If a vehicle fails its avoid hazard check, the caltrops make an attack against the vehicle with a +2 attack bonus. If the attack is successful, the vehicle's tires are destroyed and the driver is forced to make a Drive check [TN19] to retain control. The vehicle's max speed is reduced to observing speed until the tires are changed.

Oil Slick An oil slick is a large pool of oil (or any hydrophobic, slippery fluid). If the driver fails to avoid this hazard, they are forced to make a Drive check [TN18] to retain control of the vehicle.

Hazard	TN
Caltrops	16
Oil Slick	18
Small Object (tire, light debris)	8
Medium Object (crate)	12
Large Object (pile of wreckage)	19
Structure	—

Table 66: Avoid Hazard TN

Bootleg Turn

By making a bootleg turn a driver can radically change direction without turning in a loop. However, in doing so, the vehicle comes to a stop.

Before a vehicle can make a bootleg turn it must move in a straight line at least a number of squares equal to its required turn distance. To make a bootleg turn, simply change the vehicle's facing to the desired direction. The vehicle ends its movement in that location, at stationary speed.

The TN for a bootleg turn depends on the change in facing.

On a failed check, instead of facing the desired direction, the vehicle only changes facing by 45 degrees. Make a Drive check to retain control against a TN equal to the TN for the bootleg turn attempted.

Facing Change	TN
45°	5
90°	10
135°	15
180°	20

Table 67: Bootleg Turn TN

Dash

With a dash stunt, a driver can increase the vehicle's speed by one category. This increase is in addition to any speed change made at the beginning of the driver's action; if the driver increased speed at that time, they can accelerate a total of two categories in the same round.

The TN for a dash is 15. The driver can only succeed at one dash per round.

On a failed check the vehicle does not change speed categories.

Hard Brake

With a hard brake stunt, a driver can reduce the vehicle's speed by up to one category. This is in addition to any speed change made at the beginning of his action; if the driver reduced speed at that time, they can drop a total of two categories in the same round. The vehicle's movement for the round ends immediately.

The TN for a hard brake is 15. The driver can only succeed at one hard break per round. On a failed check, the vehicle does not change speed categories. Make a Drive check [TN15] to retain control (see Losing Control).

Hard Turn

A hard turn allows a vehicle to make a turn in a short distance without losing speed.

A hard turn functions like a 45° turn simple maneuver, except that the vehicle only needs to move forward a number of feet equal to half its required turn distance (rounded down).

The TN for a hard turn is 15.

On a failed check the vehicle continues to move forward a number of feet equal to its required turn distance before turning, just as with a simple 45° turn. Make a Drive check [TN15] to retain control.

Jump

A driver can attempt to jump their vehicle across a gap in their path.

To make a jump the vehicle must move in a straight line a number of feet equal to its required turn distance.

The TN for a jump depends on the width of the gap modified by the vehicle's speed category.

On a failed check, the vehicle fails to clear the gap, and instead falls into it (or collides with the far side). Determine damage as for a collision (see Collisions and Ramming).

Gap Width	TN
1-3' (ditch)	15
4-7' (culvert)	20
8-15' (creek, small ravine)	25
16-25' (narrow road, small pond)	30
26-40' (wide road, small river)	35
Vehicle Speed Category	**TN Mod**
Observational	+20
Cruising	+15
Alley	+10
Avenue	+5
Street	+0
Highway	–5
All Out	–10

Table 68: Vehicle Jump TN

A shallow gap (1 to 3 feet deep) is equivalent to a Medium-size object; the vehicle may be able to avoid taking collision damage from the failed jump by treating the far side as a hazard and then continue moving (see Avoid Hazard, above).

A moderately deep gap (4 to 10 feet deep) is equivalent to a Huge object. The vehicle can only drive out of the gap if the walls are not too steep.

A deeper gap (11 feet or deeper) is equivalent to a Colossal object. The vehicle can only drive out of the gap if the walls are not too steep.

If the gap is filled with water, the vehicle takes only half damage from the collision with the ground. However, if the water is too deep or the bottom is too soft (GM's discretion), the vehicle might not be able to move.

Sideswipe

During a vehicle's movement, a driver can attempt to sideswipe a vehicle or other target, either to deal damage without fully ramming it or to cause another driver to lose control of their vehicle.

At character scale, a vehicle must be side by side with its target (that is, occupying the square or squares directly to its side) and moving in the same direction. Attempting a sideswipe costs 1 square of movement.

If the stunt is successful the sideswiping vehicle and the target both take damage as if they had collided (see Collisions and Ramming), except that the collision multiplier is ¼, and the target (or driver of the target vehicle) can make a Reflex Saving Throw [TN15] to reduce the damage to both by half. If the target is another vehicle the driver must succeed at a Drive check [TN15] at the beginning of their next action or lose control of the vehicle. The TN for a sideswipe is 15 and is modified by the relative size and speed of the target.

Target Condition	TN Modifier
Each size category larger	–5
Each size category smaller	+5
Each speed category of difference	–2

Table 69: Sideswipe

On a failed check, both vehicles take damage as though the sideswipe attempt was a success. However, the other driver does not need to make a check to retain control.

Terrain

The terrain a vehicle is driving on can also change how a vehicle is controlled, and how fast it can go.

- **Paved Road** Paved roads are roads made of cement, asphalt, or any other kind of standard paving. They have no special rules.
- **Semi-Paved Road** These roads include gravel, hard compacted dirt roads, and any other kind of road where traditional paving is not used. They grant a –1 penalty to all Drive checks.
- **Wilderness** Wilderness includes loose dirt roads, sand, or any kind of road off the beaten path. When driving on this type of surface, the maximum speed is reduced by 4 categories.
- **Icy and Snow Modifier** Ice and snow remove traction from the road, making it harder to steer and gain control. When driving on any kind of road that is considered icy or snowy, there is a –4 penalty to Drive checks.
- **Rain Modifier** Rain makes it somewhat more difficult to drive, with the loss of traction. When driving on any kind of road that has been rained on, there is a –2 penalty to Drive checks.

Driver Options

Here is what a vehicle driver can do during the Movement Phase:

- **Choose the Vehicle's Speed** The driver may increase or decrease their vehicle's speed category by one (or keep it the same).
- **Movement** Move and maneuver, and attempt a single stunt as part of the movement.

Collisions and Ramming

A collision occurs when a vehicle strikes another vehicle or a solid object. Generally, when a vehicle collides with a creature or other moving vehicle, the target can attempt a Reflex Saving Throw [TN15] to reduce the damage by half.

Resolving Collisions

The base damage dealt by a vehicle collision depends on the speed and size of the objects involved. Use the highest speed and the largest size of the two colliding objects and refer to Table: Collision Damage.

Highest Speed	Damage Die
Observational	1
Cruising	d2
Alley	d4
Avenue	d6
Street	d8
Highway	d10
All Out	d12
Smallest Object or Creature Size	**# of Dice**
Colossal	20
Gargantuan	16
Huge	12
Large	8
Medium	4
Small	2
Tiny	1
Smaller than Tiny	0

Table 70: Collision Damage

After finding the base damage, determine the collision's damage multiplier based on how the colliding vehicle struck the other vehicle or object. For vehicles moving in reverse, consider the back end to be the vehicle's "front" for determining the collision multiplier. Consult Table: Collision Direction for a multiplier.

Once the damage has been determined, apply it to both vehicles (or objects or creatures) involved in the collision. Both vehicles reduce their speed by two speed categories. If the colliding vehicle moved the minimum number of feet for its new speed category before the collision it ends its movement immediately. If not, it pushes the other vehicle or object aside, if possible, and continues until it has moved the minimum number of feet for its new speed category.

Colliding Vehicle's Target	Multiplier
A stationary object	×1
A moving vehicle, striking head-on or 45° from head-on	×2
A moving vehicle, striking perpendicular	×1
A moving vehicle, striking from the rear or 45° from the rear	×½
A vehicle being sideswiped (see Sideswipe)	×¼

Table 71: Collision Direction

The driver of the vehicle that caused the collision must immediately make a Drive check [TN15] or lose control of the vehicle (see Losing Control, below). The driver of the other vehicle must succeed on a Drive check [TN15] at the beginning of their next action or lose control of their vehicle.

Damage to Vehicles Occupants

When a vehicle takes damage from a collision its occupants may take damage as well. The base amount of damage depends on the cover offered by the vehicle.

Cover	Damage
None	Same damage taken by vehicle
¼	½ damage taken by vehicle
½	¼ damage taken by vehicle
¾ or more	None

Table 72: Occupant Collision Damage

Each of the occupants may make a Reflex Saving Throw [TN15] to take half damage.

Losing Control

A collision or a failed stunt can cause a driver to lose control of his vehicle. In these cases, the driver must make a Drive check to retain control of the vehicle. If this check is successful the driver maintains control of the vehicle.

If the check fails the vehicle goes into a spin. If it fails by 10 or more, the vehicle rolls. Remember that the check/roll modifier from Table: Vehicle Speeds and Modifiers applies to all Drive checks.

An out-of-control vehicle may strike an object or other vehicle. When that happens, a collision occurs.

Spin

The vehicle skids, spinning wildly.

At character scale, the vehicle moves in its current direction a number of feet equal to the required turn distance for its speed, then ends its movement. Once it stops, roll 1d8 to determine its new facing.

At vehicle scale, the vehicle moves 5' and stops. Roll to determine its new facing as indicated above.

1	no change	5	180°
2	right 45°	6	left 135°
3	right 90°	7	left 90°
4	right 135°	8	left 45°

Table 73: Vehicle Spin

Roll

The vehicle tumbles, taking damage.

At character scale, the vehicle rolls in a straight line in its current direction for a number of feet equal to the required turn distance for its speed, then ends its movement. At the end of the vehicle's roll, reorient the vehicle perpendicular to its original direction of travel (determine left or right randomly).

At vehicle scale, the vehicle rolls 5' before stopping and reorienting.

At either scale, a vehicle takes damage equal to 2d6 x the character scale required turn distance for its speed (use the required turn distance from character scale even at vehicle scale). The vehicle's occupants take damage equal to 2d4 x the character scale required turn distance for its speed (Reflex Saving Throw [TN15] for half damage).

Hide and Seek

When being pursued, a driver can attempt a Stealth check to lose the pursuer in heavy traffic, or a Presence check to misdirect the pursuer before turning onto an off-ramp or a side street.

To make a Stealth check use the normal rules for hiding (see the Stealth skill description). The normal size modifiers apply, but because the driver is hiding among other vehicles, most of which are size Large or Huge, they gain a +8 bonus on the check. This use of the Stealth skill can only be attempted in fairly heavy traffic; in lighter traffic the GM might not allow it or might apply a penalty to the check.

A driver can use Presence to make a pursuer think they are going a different direction from what the driver intends. Just before making a turn onto an off-ramp or side street, make a Presence check opposed by the pursuer's Presence check. If the driver is successful the pursuer takes a –5 penalty on any Drive check needed to make the turn to follow the driver. If the other driver can make the turn using only simple maneuvers and does not have to make a Drive check the Presence attempt has no effect.

Fighting from Vehicles

The following rules provide a further framework for combat involving vehicles.

Actions during the Attack Phase of vehicle combat are handled the same way as actions during personal combat.

Move Actions

Changing position within a vehicle is usually 5 Combat Points, especially if the character has to trade places with another character. If the character's movement is short and unobstructed, the character can do it at the cost of regular movement.

Attack Actions

Anyone aboard a vehicle can make an attack with a personal weapon, and drivers and gunners can make attacks with any vehicle-mounted weapons controlled from their positions.

Crew Quality

Rather than force the GM to create, or remember, statistics for everyone aboard a vehicle, vehicle statistics include a general "crew quality" descriptor. This indicates a typical crew's aptitude with the vehicle's systems. Table: Crew Quality shows the five levels of crew quality for GM-controlled vehicle crews, along with the appropriate check modifier. Use the check modifier for all skill checks related to the operation of the vehicle (including Drive and Craft (Mechanical, Electronic, or Structural) checks). Use the attack bonus for all attack rolls performed by the crew. For quick reference, Table: Crew Quality shows the typical crew quality, and the crew's total Initiative and maneuver modifiers, for the vehicles covered in this book.

This by no means restricts the GM from creating unique vehicles where the crew's statistics are included or from using GM characters' abilities when they drive or attack from vehicles. It's merely a shortcut to save time if the GM doesn't have particular characters behind the wheel.

Crew Quality	Check Modifier	Attack Bonus
Untrained	–4	–2
Normal	+2	+0
Skilled	+4	+2
Expert	+8	+4
Ace	+12	+6

Table 74: Crew Quality

Attack Options

Firing a vehicle's weapon requires the use of Combat Points, dependent on how it is fired, and uses the driver's or gunner's ranged attack modifier.

A driver with 5 or more ranks in the Drive skill gains a +2 synergy bonus when firing vehicle-mounted weapons while driving.

Some military vehicles are equipped with fire-control computers. These systems grant equipment bonuses on attack rolls with the vehicle-mounted weapons to which they apply.

Driving Defensively Just as in melee combat, one can fight defensively while driving a vehicle, which grants a +2 dodge bonus to the vehicle's Defense and applies a –4 penalty on attack rolls made by occupants of the vehicle. It has the same Combat Point cost as normal.

Targeting Occupants

An attack made against a vehicle uses the vehicle's Defense modified by its speed category. Attackers can choose instead to target specific vehicle occupants.

An attack against a vehicle occupant is made like any other attack. Remember, however, that a character in a vehicle gains bonuses to Defense from both the vehicle's speed and any cover it provides.

Cover

When a character fires from a vehicle, objects or other vehicles in the way can provide cover for the target.

Damaging Vehicles

All vehicles have Hit Points which are roughly equivalent to a character's Hit Points. Like most inanimate objects, vehicles also have hardness. Whenever a vehicle takes damage, subtract the vehicle's hardness from the damage dealt.

When a vehicle is reduced to 0 Hit Points, it is disabled. Although it might be repairable it ceases functioning. A vehicle that is disabled while moving drops one speed category each round until it comes to a stop. The driver cannot attempt any maneuvers except a 45-degree turn.

A vehicle is destroyed when it loses Hit Points equal to twice its full normal total. A destroyed vehicle cannot be repaired.

Tires

Most ground vehicles need tires to move. Targeting a tire is a called shot at a –4 to hit the tire. If a vehicle's tire is hit the driver must make a Drive check [TN16] or lose control of the vehicle. For every tire lost, the vehicle loses one-quarter of its speed.

Energy Attacks

Vehicles are treated as objects when subjected to energy attacks.

Exploding Vehicles

If the attack that disables a vehicle deals damage equal to half its full Hit Points or more, the vehicle explodes after 1d6 rounds. This explosion deals 15d6 points of Fire damage to everyone within the vehicle (Reflex Saving Throw [TN20] for half damage) and half that much to everyone and everything within 30 feet of the explosion (Reflex Saving Throw [TN15] for half damage).

Repairing Damage

Repairing damage to a vehicle takes a full hour of work, a mechanical tool kit, and a garage or some other suitable facility. Without the tool kit, a character takes a –4 penalty on their Craft check. At the end of the hour, make a Craft (Structural) check [TN20]. Success restores 2d6 HP. If damage remains, the character may continue to make repairs for as many hours as it takes to restore all of the vehicle's HP.

Chapter VII

Equipment

Creature and Vehicle Size	Item Size	Spacecraft Size	Absolute Size
—	Fine	Insignificant	1
—	Diminutive	Insignificant	2
Fine	Tiny	Insignificant	3
Diminutive	Small	Insignificant	4
Tiny	Medium	Insignificant	5
Small	Large	Insignificant	6
Medium	Huge	Insignificant	7
Large	Gargantuan	Insignificant	8
Huge	Colossal	Fine	9
Gargantuan	—	Diminutive	10
Colossal	—	Tiny	11
—	—	Small	12
—	—	Medium	13
—	—	Large	14
—	—	Huge	15
—	—	Gargantuan	16
—	—	Colossal	17

Table 75: Size Categories

Restricted Objects

Some objects require licenses to own or operate, or are restricted in use to qualifying organizations or individuals. In such cases, a character must purchase a license or pay a fee to legally own the object. A license or fee is a separate item, purchased in addition to (and usually before) the object to which it applies. The four levels of restriction are as follows. When dealing with licenses and weapons, the license type includes any papers or cards necessary to carry the weapon, open or concealed, without being hassled by law enforcement.

- **None** No license or restriction is required to own or operate the object.
- **Licensed** The owner must obtain a license to own or operate the object legally. Generally, the license is not expensive, and obtaining it has few if any additional legal requirements.
- **Restricted** Only specially qualified individuals or organizations are technically allowed to own the object. However, the real obstacles to ownership are time and money; anyone with sufficient patience and cash can eventually acquire the necessary license.
- **Military & Police** The object is sold primarily to legitimate police and military organizations. An M&P restriction is essentially the same as Restricted, except that manufacturers and dealers are generally under tight government scrutiny and are therefore especially wary of selling to private individuals. Military and police license are split between two types: Weapons and Explosives, and Chemicals and Narcotics. Each license allows the user to purchase the applicable type of objects based on their type of M&P license.
  - Chemicals and Narcotics: Chemicals and Narcotics cover any chemicals, poisons or pharmaceuticals, both created or purchased, that are classified under M&P. This also includes creating raw explosives, and the completed explosives, but not explosive devices.
  - Weapons and Explosives: Weapons and Explosives licenses cover any weapons, complete explosives or explosive devices, such as grenades, or mines. It also includes any software, accessories, modifications, or upgrades to weapons that are classified under M&P. Any object not covered in Chemicals and Narcotics specifically uses a Weapons and Explosives type M&P license.
- **Illegal** The object is illegal in all but specific, highly regulated circumstances. Illegal Licenses are purchased per singular illegal item and the licensee must specify a single Illegal item (Such as Cannabis) to gain a license to purchase, manufacture, and possess.

Purchasing a License

To purchase a license or pay necessary fees, a character pays the fee on the chart, and waits the appropriate time. To expedite the process, the character may attempt a Knowledge (Business or Civics) check at the listed TN. Success results in the license being issued in 1d4 days. During character creation, a character only needs to purchase the license or pay the fee; the time required takes place before game play begins, however a character can only purchase a Licensed or Restricted license at character generation, unless a GM says otherwise.As a general rule, a character must obtain the appropriate license before buying a restricted object. When a character has purchased the appropriate license once, it is applicable for all items with the same rating and type, so a character does not have to purchase a license for each item of the same level, unless they are purchasing an illegal rated item. For Licensed, Restricted, and M&P licenses, a higher license grants the ability to purchase any object at the same restriction level or lower. Legitimate dealers will not sell objects to a character who does not have the necessary license. However, a character may be able to turn to the black market to obtain restricted objects without a license.

In some cases, a player may want to purchase an item that is above their license level. If the item in question is able to have its license level lowered through any upgrades, the player may purchase the item with the upgrades that would reduce its level, but they must purchase the item at the "New in Box" price.

Registration Rating	Knowledge (Business or Civics) TN	Time Required	Cost
Licensed	15	5 days	5
Restricted	20	1 week	10
Military & Police	25	2 weeks	20
Illegal	30	3 weeks	12 per item

Table 76: Equipment, Licenses

The Black Market

Sometimes a character wants to obtain an object without going through the hassle of getting a license first. Almost anything is available on the black market. Knowledge (Streetwise) checks can be used to locate a black market merchant. The TN is based on where the character is searching: 15 in a big city, 20 in small towns, 25 or higher in rural areas. Objects purchased on the black market are more expensive than those purchased legally. Add the black market purchase percentage increase to the object's cost. Obtaining an object on the black market takes a number of days according to the Time Required column on Table: Licenses. The process can be hurried, but each day cut out of the process (to a minimum of one day) increases the purchase cost by an additional 25%.

Registration Rating	Black Market Price Increase
Licensed	x2
Restricted	x2½
Military & Police	x4
Illegal	x4½

Table 77: The Black Market

New Vs. Used

The prices listed for the various objects are the price you'd pay for something NIB (New in Box), but often characters will either try to purchase something used or try to sell extra gear. When purchasing or selling something used, use these rates.

- **New in Box** 100% of normal price. Object has never seen use and even still comes with the receipt. Characters selling items back will only gain the new in box status if the item has never been used and has all of the listed items.
- **Good** 75% of normal price. Object shows some wear, but still works as advertised. Firearms will not have spare magazines, slings, or any extra equipment outside of a single magazine.
- **Fair** 50% of normal price. Object shows wear and has light damage, firearms would not have spare magazines or extra equipment, and would need to be cleaned in this state, and cars may have to have minor repairs (15% HP lost or less).
- **Usable** 25% of normal price. Objects need repair to use functionally, firearms considered damaged and need to be repaired before use, cars would need major repairs (16-25% HP lost)..
- **Poor** 1% of normal price. Objects are basically junk at this point. A vehicle would have to be rebuilt from this stage (50% or more HP lost).

Availability and Rarity

In Ops and Tactics, the book assumes that everything is equally available, either a click on a website, or a trip to a shop away. A GM may want to restrict the players purchasing power, but do so in a random manner. Below are some classifications a GM can assign items, or if a player wants to buy something and the GM isn't sure that it's available. When checking for availability, the GM rolls a D% against the classification they assign the item. Rolling at or below the percentage means the item is available to purchase. This is only a guideline, and a GM can always simply declare that a particular item is not for sale on the open market at all.

- **Ubiquitous** 99%. These items can be found on multiple shelves in multiple stores, and are a staple item for purchase at multiple locations.
- **Common** 90%. These items are a fairly regular item that can be found at a few stores, but is not always available, possibility due to a small shortage.
- **Uncommon** 85%. These items are not out of the realm of finding, but is unusual. It may be carried at specialty shops.
- **Sparse** 65%. These items are somewhat difficult to find for sale, but they are available for sale on an infrequent basis.
- **Rare** 35%. These items occasionally come up for sale here and there, but it's not a normal sight.
- **Very Rare** 15%. These items are not commonly found for sale at all.
- **Small Batch** 5%. These items are made in very small batches, and finding one for sale may be very difficult.
- **Singular** 1%. There is only one of this item for sale currently, possibly due to the fact that there is only one of these items that exist.

Mastercraft Objects

Melee and non-ballistic ranged weapons, armor, and most other types of equipment can be purchased as mastercraft objects. The exceptional quality of these objects provides the user a bonus on attack rolls, skill rolls, saving throw rolls, or some other characteristic that improves when the object is used. A GM is encouraged to give mastercraft objects unique or appreciative benefits when characters purchase these objects. A mastercraft object that provides a +1 bonus can usually be purchased on the open market as a high quality version of a common object, while a mastercraft object that provides a +2 bonus can usually be purchased on the open market as a semi-custom version of a common object. The increased cost of this item is 175% of the item's cost for a +1 and 225% of the item's cost for a +2.

A rare few objects are of mastercraft quality even without customization. The off-the-shelf version of the object is of such high quality that it is always provides a +1 or +2 bonus. In these cases,

the cost is not increased, as such objects are already priced higher than similar objects of lower quality.

Mastercraft objects with a bonus of +3 are considered grandmastercraft and are not common and are generally not for sale. The cost of a grandmastercraft +3 object would add 350% to the normal cost.

Carrying Capacity

A character's carrying capacity depends directly on the character's STR score. The formula for calculating the amount of pounds a character can carry is: (`STR SCORE * 4 lbs`)

Concealed Weapons and Objects

It is assumed that when attempting to conceal a weapon or other object, a character is wearing appropriate clothing. Drawing a concealed weapon is more difficult than drawing a regularly holstered weapon. Keeping the weapon in an easier-to-draw position makes concealing it more difficult.

Waistband Carry

Waistband carry is holstering a weapon in the waistband without a proper holster. When carrying a weapon in this manner, it isn't properly secured, and will fall out under any strenuous movement. When waistband carrying, a character must make a Reflex Saving Throw [TN15] to keep their weapon in their belt when doing any actions that cause them to roll an attack roll or a DEX or STR based skill check. If they fail this check, the weapon falls to the ground.

Stealth Checks

To conceal a weapon or other object, make a Stealth check. A character concealing an object before they head out into public can usually take 10 unless they are rushed, trying to conceal it when others might see, or under other unusual constraints. Stealth may be used untrained in this instance, but the character must take 10.

Concealment

The object's size affects the check result, as shown below. The type of holster used or clothing worn and any attempt to make a weapon easier to draw can also affect the check.

Condition	Stealth Modifier
Clothing is tight or small	–4
Clothing is especially loose or bulky	+2
Clothing is specifically modified for concealing objects	+2
Size of weapon or object	
Fine	+12
Diminutive	+8
Tiny	+4
Small	+0
Medium	–4
Large	–8
Huge or larger	Can't conceal

Table 78: Concealing Weapons & Objects

Spotting Concealed Objects

Noticing a concealed weapon or other object requires a Perception check. The TN varies: If the target made a roll when concealing an object, the TN of the Perception check to notice the object is the same as the target's check result (an opposed check, in other words). If the target took 10 on their Stealth check, use this formula:

Target's Stealth skill modifier (including modifiers from the above table) + 10 = Perception TN

An observer attempting to spot a concealed object receives a –1 penalty for every 10' between him or herself and the target, and a –5 penalty if distracted. Patting someone down for a hidden weapon requires a similar check. However, the skill employed is Perception, and the searcher receives a +4 circumstance bonus for the hands-on act of frisking the target. Some devices may also offer bonuses under certain circumstances (a metal detector offers a bonus to Perception checks to find metal objects, for example).

Spotting Concealable Armor

Concealable armor can be worn under clothing if the wearer wants it to go unnoticed. Don't use the modifiers from Table: Concealing weapons and objects when wearing concealable armor. Instead, anyone attempting to notice the armor must make a Perception check [TN30].

Living in Luxury

The prices given are for average quality items. It is possible to purchase similar items with luxury features, generally by increasing the cost by 20%. Although such items are more expensive, they offer no additional features or game benefits.

General Equipment

Liquid Volume and Conversions

Units are a general representation of liquid volume.
For any liquids not listed in the book, a GM or player can use this formula for calculating the amount of units of any liquid: `1 Unit = 8 fl. oz/236ml`
A GM can convert weights of common items from decimal lbs to metric units. When doing so, use this formula: `0.1 lb = 50g/0.05 kg`
A GM can convert distances from feet to meters. When doing so, use this formula: `5 feet = 1.5 meters`

Bags and Boxes

With the wide variety of equipment available, it is quite often critical to have something to store the equipment or carry it around in.

Aluminum Travel Case A travel case is a reinforced metal box with foam inserts. Wing-style clamps keep it from opening accidentally. The small case can hold 30 lbs of objects that are Medium or smaller

size, the medium case can hold 60 lbs of objects that are Large or smaller size, and the large case can hold 120 lbs of objects that are Large or smaller.

Backpack This is a good-sized backpack, made of tough water-resistant material. It has one or two central sections, as well as several exterior pockets and straps for attaching tents, bedrolls, or other gear. It can carry up to 60 lbs of objects that are medium or smaller. A backpack gives a character a +3 lbs carrying capacity bonus.

Briefcase A briefcase can carry up to 12 lbs worth of objects that are Small size or smaller. A briefcase can be locked, but its cheap lock is not very secure; the lock can be picked with a Disable Device check [TN15], break [TN10].

Contractor's Field Bag A combination tool bag and notebook computer case, this has pockets for tools, pens, notepads, and cell phones. It even has a clear plastic flap for maps or plans. Made of durable fabric, it holds 10 lbs worth of objects that are medium size or smaller and comes with a shoulder strap.

Day Pack This is a small backpack, the sort often used by students to carry their books around, or by outdoor enthusiasts on short hikes. It holds 15 lbs worth of objects that are Medium size or smaller, and fits comfortably over one shoulder in a messenger type style or on both shoulders in a traditional pack type.

MOLLE Compartment Day Pack This is a a backpack that bears a very similar outward appearance to a normal backpack or day pack, but has MOLLE attachments hidden in a secret compartment. The secret compartment is it's own compartment and does not affect or use the capacity of the standard compartment, granting a +15 bonus to stealth checks when hiding any weapon or object within it. The secret compartment can be revealed for 3 Combat Points. The tiny pack can hold 4 lbs of objects that are Small or smaller size and has 2 MOLLE slots, the small pack can hold 8 lbs of objects that are Small or smaller size and has 3 MOLLE slots, the medium pack can hold 12 lbs of objects that are Medium or smaller size and has 6 MOLLE slots, and the large pack can hold 20 lbs of objects that are Medium or smaller and has 9 MOLLE slots. This pack fits comfortably over one shoulder in a messenger type style or on both shoulders in a traditional pack type. The Small, Medium, and Large packs have plate compartments, allowing them to use a set of armor plates, but the bag grants the installed armor plates DR against attacks that come from a single direction that the wearer specifies, and armor points are lost and damage is applied as if it were worn armor. These bags can not take advantage of any MOLLE carrier pouches that hold armor plates. These plates are not considered Armor in the traditional sense, and can be worn over any other armor or clothing.

Handbag Handbags provide another way to carry 2 lbs of objects that are Small sized or smaller. The wealth point cost shown is for a basic bag; high-fashion purses can be exponentially expensive.

Range Pack This lightweight black bag has a spacious inner compartment capable of holding roughly 14 lbs of objects that are Medium sized or smaller and two zippered components that can hold 2 lbs of Small objects or smaller each. The larger version has a internal compartment that can hold 25 lbs of objects that are Large sized or smaller and another 6 lbs in the zippered external pouch. A range pack gives a character a +3 lbs carrying capacity bonus.

Duffel Bag A simple bag with either zipper or draw sting closures and a strap, duffel bags come in all different sizes and shapes. The small bag can hold about 20 lbs of objects that are Medium sized or smaller, while the large can hold up to 100 lbs of objects that are Large sized or smaller.

Waist Pack This small zippered pouch is fitted with an integral belt or a belt clip, and is designed to be fastened around the waist. It comes in two sizes, small and large. The small pack can hold 3 lbs of objects that are Small or smaller comfortably, and the large pack can hold 6.5 lbs of objects that are Small or smaller comfortably. All items in a waist pack are considered to be stored in LBE gear.

Object	Sz	Wt	Cost	Restr
Backpack	M	2.0	6	None
Small Aluminum Travel Case, 30 lb. cap	M	4.4	2	None
Medium Aluminum Travel Case, 60 lb. cap	L	9.0	4	None
Large Aluminum Travel Case, 120 lb. cap	L	15.0	7	None
Briefcase	M	2.0	2	None
Contractor's Field Bag	M	1.1	1	None
Day Pack	S	1.0	1	None
Tiny MOLLE Compartment Day Pack	S	1.7	6	None
Small MOLLE Compartment Day Pack	M	2.6	9	None
Medium MOLLE Compartment Day Pack	L	3.5	11	None
Large MOLLE Compartment Day Pack	L	4.3	14	None
Handbag	S	0.6	1	None
Range Pack, Standard	M	2.0	7	None
Range Pack, Oversized	L	8.0	11	None
Duffel Bag, Small	M	0.8	1	None
Duffel Bag, Large	L	2.0	2	None
Waist Pack, Small	S	0.5	2	None
Waist Pack, Large	S	0.9	5	None

Table 79: Equipment, Bags & Boxes

Clothing

The items described here represent special clothing types or unusual outfits that a character might need to acquire. For the most part, clothing choice is based on character concept. It is assumed that a character owns a reasonable wardrobe of the sorts of clothes that fit their lifestyle. Sometimes, however, a character might need something out of the ordinary. When that's the case, they will have to purchase it like any other piece of gear. Clothes have three effects on game mechanics: one on Presence checks, one on Stealth checks, and one on environmental factors. First, clothing is part of a disguise.

See the Presence skill description for more on how appropriate dress affects Presence checks. Clothes also help to hide firearms,

body armor, and small objects. Tightly tailored clothing imposes a penalty on an attempt to conceal an object; clothing purposely tailored to conceal objects provides a bonus. Clothing also includes worn accessories, such as holsters, sheathes, and armor.

An outfit of clothing represents everything a character needs to dress a part: pants or skirt, shirt, undergarments, appropriate shoes or boots, socks or stockings, and any necessary belt or suspenders. The clothes a character wears does not count against the weight limit for encumbrance. Each outfit has a level that is appropriate for a given temperature range (very hot, hot, mild, or cold), and the wearer can remove layers or roll up cuffs to make it acceptable, if not completely comfortable, for the next higher range. The price listed is for the base set of clothes, high-fashion clothing can be exponentially expensive.

Clothing can also hold equipment. As a general rule, a set of clothing has two side pockets that can hold 2 lbs of equipment that is tiny or smaller, per pocket. Different styles and clothing configurations can change this, up to the GM's discretion. Clothing itself, and any items or equipment that is carried within clothing is not counted against a character's total carrying capacity. Any weapons carried within a pocket without a holster or sheath, are considered waistband carried.

Business A business outfit generally includes a jacket or blazer, but can incorporate everything up to, and including three piece suits. Business clothing tends to look sharp and well groomed without being overly formal.

Casual Casual clothes range from cut-off jeans and a T-shirt to neatly pressed khakis and a hand-knit sweater.

Formal From a little black dress to a fully appointed tuxedo, formal clothes are appropriate for "black tie" occasions. Special designer creations can have a cost much higher than shown on the table.

Fatigues Called "battle dress uniforms" (or BDUs) in the United States Armed Forces, these are worn by hardened veterans and wannabes alike. They're rugged, comfortable, and provide lots of pockets. They are also printed in various camouflage patterns: woodland, desert, winter, urban (gray patterned), and black are available. When worn in an appropriate setting, fatigues grant a +2 bonus on Stealth checks.

Uniform From the cable guy to a senior Air Force officer, people on the job tend to wear uniforms, making such clothing an essential part of some disguises since a uniform inclines people to trust the wearer. Wearing a uniform grants a +2 circumstance bonus on all applicable Presence checks. The price of the uniform is based on what particular uniform a character is trying to acquire and is set by the GM.

Ghillie Suit The ultimate in camouflage, a ghillie suit is a loose mesh over garment covered in strips of burlap in camouflage of the purchaser's choice. Other camouflaging elements can easily be added. A figure under a ghillie suit is nearly impossible to discern. A character wearing a ghillie suit with appropriate coloration gains a +10 bonus on Stealth checks. It takes 20 minutes to change the suit's coloration. However, the bulky suit imposes a penalty of –4 on all DEX checks, DEX-based skill checks (except Stealth), and melee attack rolls.

Outerwear

In addition to keeping a character warm and dry, coats and jackets provide additional concealment for things a character is carrying (they often qualify as loose or bulky clothing; see Concealed Weapons and Objects).

Coat An outer garment worn on the upper body. Its length and style vary according to fashion and use. It grants the wearer immunity from cold environments and grants a +1 to Fortitude Saving Throws made to resist the effects of cold weather. The price listed is for a simple coat or hoodie, high-fashion clothing can be exponentially expensive. Coats have two pockets than can hold 1.5 lbs of equipment that is Tiny sized or smaller each.

Fatigue Jacket A lightweight outer garment fashioned after the fatigue uniforms worn by military personnel when performing their standard duties.

Overcoat A warm coat worn over a suit jacket or indoor clothing, granting the wearer immunity from cold and very cold environments and grants a +3 to Fortitude Saving Throws made to resist the effects of cold weather. The price listed is for a simple overcoat, high-fashion clothing can be exponentially expensive. Overcoats have two pockets than can hold 2.0 lbs of equipment that is Tiny sized or smaller each, and an internal pocket that can hold 1 lbs of equipment that is Diminutive sized or smaller.

Parka This heavy winter coat grants the wearer immunity from cold, very cold, and extremely cold environments, but have a –2 penalty for all attack rolls, and all dexterity based saving throws and skill checks while worn. Parkas have four pockets than can hold 4 lbs of equipment that is Small sized or smaller each

Work Gloves These gloves are thick leather working gloves, protecting from heat, cold, and generally corrosive or sharp objects, allowing someone to work comfortably with these objects and elements.

Utility Belts Tool belts and police gun belts fall into this category. They can comfortably hold 10 lbs of objects of small or smaller size and keep them on hand at all times. They can also attach tactical holsters and caddys to them.

Flotation Vest A character wearing a flotation vest need not make Athletics checks to stay afloat, and their encumbrance load is considered 50 lbs. lighter for the purpose of determining weight penalties with Athletics checks to swimming. A flotation vest can be worn over normal clothing and light to medium armor.

Gas Mask The gas mask provides full protection against the effects of tear gas, pepper balls, and chemical irritants and grants the wearer a +6 bonus to Fortitude Saving Throws made to resist inhaled contaminants, with a succcessful save meaning that they take no damage. The character can also purchase filters that can protect against a single specific type of inhaled poison for 2 WP.

MOPP Suit A MOPP Suit or "Mission Oriented Protective Posture" is a fully sealed rubber suit that provides full protection against irritants, poisions and diseases. A MOPP suit provides full protection against the effects of tear gas, pepper balls, chemical irritants, inhaled or contact contaminants, and contact diseases, as long as the suit is intact. If a wearer takes any piercing, slashing, ballistic, ballistic piercing, fire, cold, acid, or plasma damage, the suit is compromised, and loses it's protection. When wearing a MOPP suit, all Combat Point Cost for all actions are increased by 3.

Object	Sz	Wt	Cost	Restr
Business, Hot	M	3.0	5	None
Business, Mild	M	2.0	5	None
Business, Cold	M	4.0	6	None
Casual, Very Hot	M	1.8	2	None
Casual, Hot	M	3.0	2	None
Casual, Mild	M	2.0	3	None
Casual, Cold	M	4.0	4	None
Formal, Hot	M	3.0	6	None
Formal, Mild	M	2.0	7	None
Formal, Cold	M	3.0	8	None
Fatigues, Hot	M	3.0	7	None
Fatigues, Mild	M	2.0	6	None
Fatigues, Cold	M	4.0	9	None
Uniform	M	3.0	See text	None
Ghillie Suit	M	6.0	6	None
Coat	M	2.0	2	None
Fatigue Jacket	M	1.8	3	None
Overcoat	M	3.1	3	None
Parka	M	5.0	7	None
Work Gloves	S	0.4	1	None
Utility Belt	S	1.8	2	None
Flotation Vest	M	1.0	1	None
Gas Mask	M	1.5	4	None
Filters, Gas Mask	T	0.3	2	None
MOPP Suit	L	6.5	12	None

Table 80: Equipment, Clothing

Eyewear

Eyewear encompass everything from basic sunglasses, to the most covering night vision goggles. A character can have only one pair of eyewear on at one time. Mounts can be purchased to mount eyewear or other devices like flashlights to a helmet, at 3 WP.

Flash Goggles These eye coverings provide total protection against blinding light. They negate all Will Saving Throws against blindness, but the wearer suffers a –4 ranged attack penalty while wearing them.

Sunglasses Sunglasses are tinted glasses that block UV rays and bright light. They grant a +1 to all Will Saving Throws against blindness.

Infrared Goggles Infrared goggles are goggles that use heat signatures to locate targets. They grant the user the ability to see any target that is warmer than their surroundings in darkness, but because of the restricted view, grant a –5 penalty to all sight based perception checks made by someone wearing them. Mounts can be purchased to mount the IRGs to a combat helmet, at +1 WP to the cost.

Night Vision Goggles Night vision goggles are goggles that use passive light gathering to improve vision in near-dark and dark conditions. They grant the user the ability to see in darkness, but because of the restricted view, grant a –5 penalty to all sight based perception checks made by someone wearing them. When in complete darkness, NVGs must either be used with an infrared illuminator (+8 to the cost), or use another source of infrared light. Using either of these sources of infrared light grants fully illuminated vision as normal.

Object	Sz	Wt	Cost	Restr
Flash Goggles	T	0.1	1	None
Sunglasses	T	0.1	2	None
IRGs	S	1.3	40	None
NVGs	S	1.6	7	None

Table 81: Equipment, Eyewear

MOLLE

Modular Lightweight Load-carrying Equipment (MOLLE) is customizable load-bearing equipment utilized by various armed forces. MOLLE can be configured to the user's specifications, based on the needs of the user. MOLLE has a number of attachment slots, that can be filled by various pouches. When using MOLLE, the weight of all weapons and equipment in the equipment is halved. MOLLE is also printed in camouflage patterns: woodland, desert, winter, urban (gray patterned), and black are available. When worn in an appropriate setting, and is all matching, MOLLE grants a +2 bonus on Stealth checks.

Kit Pouch (1 slot per 5 pounds) This pouch can hold a small kit, keeping it on hand at all times for quick use.

Small Holster Pouch (1 slot) This pouch encompasses a holster that holds a firearm of Small or smaller size.

Large Holster Pouch (2 slots) This pouch encompasses a holster that holds a firearm of Medium or smaller size.

Single Large Magazine Pouch (1 slot) This pouch can hold a single rifle, machine pistol, or SMG magazine with a capacity of 60 rounds or less, or a shotgun magazine with a capacity of 10 rounds or less. Using magazine pouches negates the necessity to spend CP to reach into a pack to retrieve magazines/speedloaders.

Dual Large Magazine Pouch (1 slot) This pouch can hold two rifle, machine pistol, or SMG magazines with a capacity of 60 rounds or less, or a shotgun magazine with a capacity of 10 rounds or less. Using magazine pouches negates the necessity to spend CP to reach into a pack to retrieve magazines/speedloaders.

Quad Large Magazine Pouch (3 slot) This pouch can hold four rifle, machine pistol, or SMG magazines with a capacity of 60 rounds or less, or a shotgun magazine with a capacity of 10 rounds or less. Using magazine pouches negates the necessity to spend CP to reach into a pack to retrieve magazines/speedloaders.

Sextuple Large Magazine Pouch (4 slot) This pouch can hold six rifle, machine pistol, or SMG magazines with a capacity of 60 rounds or less, or a shotgun magazine with a capacity of 10 rounds or less. Using magazine pouches negates the necessity to spend CP to reach into a pack to retrieve magazines/speedloaders.

Small Magazine/Speedloader Pouch (1 slot) This pouch can hold up to two handgun magazines or two speedloaders. Using magazine pouches negates the necessity to spend CP to reach into a pack to retrieve magazines/speedloaders.

Shell Pouch (1 slot) This pouch can hold twenty five shotgun shells of any caliber.

Cased Ammunition Pouch (1 slot) This pouch can hold fifty rounds of cased ammunition, either in stripper clips or loose rounds.

Grenade Pouch (1 slot) This pouch can hold two grenades, either hand grenades or grenade launcher grenades.

Shell Loops (1 slot) This pouch is a simple group of elastic loops made to hold shotgun shells. The loops can hold six shells of any gauge. Using shell loops negates the necessity to spend CP to reach into a pack to retrieve ammunition.

Cartridge Loops (1 slot) This pouch is a simple group of elastic loops made to hold cased rounds. The loops can hold ten rounds of any caliber. Using cartridge loops negates the necessity to spend CP to reach into a pack to retrieve ammunition.

Utility Pouch (2 slots) This general purpose pouch can hold small electronic devices, such as a radio, GPS, cell phone, or other devices. Utility pouches can also be used to carry up to 100 round linked belts of ammunition. It can comfortably hold 4 lbs of gear that is small sized or smaller.

Plate Carrier Pouch (6 slots) This pouch is specially built to hold trauma plates that can help decrease damage taken.

Weapon Carrier Loops (6 slots) These loops secure a Large weapon to the back of the wearer, allowing them to carry a Large weapon without a sling. It takes 5 minutes to attach or remove a weapon from these loops.

Quiver Pouch (3 slots) This pouch holds 20 arrows or crossbow bolts.

Sheath Pouch (1 slot) This pouch encompasses a sheath that holds a melee weapon of Small or smaller size.

Canteen Pouch (1 slot) This pouch can hold a single canteen for easy use and access.

Backpack Pouch (5 slots) This pouch can hold up to 30 lbs of any gear that is sized Medium or smaller.

Magazine Feeder Pouch (7 slots) This pouch can hold ten rifle, machine pistol, or SMG magazines with a capacity of 30 rounds or less, or a shotgun magazine with a capacity of 5 rounds or less, in a hopper type system. Using magazine pouches negates the necessity to spend CP to reach into a pack to retrieve magazines/speedloaders.

Dump Pouch (2 slots) This pouch is used to retain empty magazines and speedloaders, keeping them on one's equipment and removing the need to go retrieve them after use. This pouch can hold up to ten magazines or speedloaders with a capacity of 60 rounds or less per magazine or speedloader. It cost no CP to drop a magazine or speedloader into the pouch, but cost 9 CP per item to remove a magazine or speedloader from the pouch, due to it's retention design.

Hydration Pouch (4 slots)

This pouch carries a hydration bladder that holds 16 units of desired liquid, usually water.

Object	Sz	Wt	Cost	Restr
Kit Pouch	S	0.5	3/slot	None
Small Holster Pouch	S	0.3	1	None
Large Holster Pouch	S	0.5	2	None
Single Large Magazine Pouch	S	0.5	1	None
Dual Large Magazine Pouch	S	0.7	2	None
Quad Large Magazine Pouch	S	0.8	3	None
Sextuple Large Magazine Pouch	S	1.0	3	None
Small Magazine/Speedloader Pouch	S	0.5	1	None
Shell Pouch	S	0.5	1	None
Cased Ammo Pouch	S	0.5	1	None
Grenade Pouch	S	0.6	1	None
Shell Loops	S	0.3	1	None
Cartridge Loops	S	0.3	1	None
Utility Pouch	S	0.7	1	None
Plate Carrier Pouch	L	1.1	5	None
Weapon Carrier Loops	M	0.7	4	None
Quiver Pouch	M	1.0	2	None
Sheath Pouch	S	0.6	1	None
Canteen Pouch	S	1.0	1	None
Backpack Pouch	M	2.0	2	None
Magazine Feeder Pouch	M	4.0	22	None
Dump Pouch	S	0.4	1	None
Hydration Pouch	M	2.5	4	None

Table 82: Equipment, MOLLE

General Kits

General kits are professional gear packages that support skill checks. Each kit is presented in 3 sizes, and though the contents of each set of kits is widely varied, all kits share the same rules. The kits list everything that comes with the selected kit.

Kit Sizes

Improvised Kit This is not a kit in the traditional sense, but rather a representation of what a character can put together to make due. The GM can determine if a character can make an improvised kit by supplies they gathered, but improvised kits only last for a single use. They allow a character to make skill checks they otherwise would not be able to without a kit, but at a –4 penalty.
Small Kit This bare essentials kit reduces the penalty to a +0 with skill checks.
Standard Kit This specialized field package confers the benefits of the small kit and grants a +2 equipment bonus with skill checks.
Deluxe Kit This expert tool suite confers the benefits of the small and standard kits, and grants a +4 equipment bonus with skill checks. Often, however, deluxe kits are too large or bulky for easy transport.

Using Supplies & Replenishing Kits

Generally, most kits can be used multiple times without worrying about supplies. When using a first aid or surgery kit, however, the bandages, disinfectant, and disposable medical supplies are to be disposed of and will eventually need to be replenished.

- A small first aid kit can be used 4 times and costs 1 WP to replenish.
- A standard first aid kit can be used 10 times and costs 3 WP to replenish.
- A deluxe first aid kit can be used 25 times and costs 9 WP to replenish.
- A surgery kit can be used 12 times and costs 9 WP to replenish.

Small Chemistry Kit Personal microscope, scale, test tube stand, analytical and precision balances, multiple various volume beakers and styrene cylinders, alcohol lamp, digital multimeter, 12" thermometer, ten shallow 4" dishes, plastic funnel, legal chemical samples.

Standard Chemistry Kit Small chemistry kit plus professional burner, professional microscope with integral camera, ultraviolet examination lamp, personal centrifuge, water bath, flash evaporator, licensed chemical samples.

Deluxe Chemistry Kit Standard chemistry kit plus wide-angle dissection microscope, electric muffle furnace, draft and vacuum ovens, chromatogram viewer, professional centrifuge, illegal chemical samples.

Object	Sz	Wt	Cost	Restr
Chemistry Kit, Small	H	30.0	70	None
Chemistry Kit, Standard	H	75.0	140	L
Chemistry Kit, Deluxe	G	250.0	210	R

Table 83: Equipment, General Kits

Small Construction Kit Sledgehammer (non-weapons grade), power drill, power saw, nail gun, caulking gun, shovel, hard hat, work gloves, safety goggles, tool belt, trowel, steel-toe boots, stud finder, duct tape, sand paper, tape measure, and building supplies (cement and drywall mix, lumber, glass, and so on as needed), paint and painting supplies (brushes, mixing tins, etc.), Do-It-Yourself handbook.

Standard Construction Kit Small construction kit plus drill press, grinder, lathe, table saw, sawhorse, cutting torch, shop vacuum cleaner, woodworking tools, and metalworking tools.

Deluxe Construction Kit Standard construction kit plus anvil, cement mixer, furnace, grinders and electric sharpening/grinding stones, power hammer, portable generator,

Object	Sz	Wt	Cost	Restr
Construction Kit, Small	H	50.0	25	None
Construction Kit, Standard	G	500.0	35	None
Construction Kit, Deluxe	C	750.0	200	None

Table 84: Equipment, General Kits

Small Demolitions Kit Dentist's mirror, non-conductive simple tools (sticks, tweezers, dull blades), wire crimper/cutter/stripper, various gages of wire (4 spools of 100' each) needle-nose pliers, pocket knife, cigarette lighter or waterproof matches, tape (duct, masking, and electrical, 25' each), grease pencils, chem-lights, pen flashlight, good-luck charm.

Standard Demolitions Kit Small demolitions kit plus hand-held blasting machine, electrical wire, non-electric fuse (75'), marker flags.

Deluxe Demolitions Kit Standard demolitions kit plus fiber optic probe, spectrometer, geiger counter, explosives reference manuals (DVD-ROM or hard copy).

Object	Sz	Wt	Cost	Restr
Demolitions Kit, Small	S	5.0	6	None
Demolitions Kit, Standard	L	50.0	20	R
Demolitions Kit, Deluxe	L	60.0	25	R

Table 85: Equipment, General Kits

Small Disguise Kit Makeup base (flesh tones, shadows, highlights, rouge, etc.), pigments, makeup binding compound (to prevent sweating off of the disguise), putty and liquid latex compound (for sculpting scars, boils, warts, etc.), spirit gum adhesive, clear adhesive surgical tape, assorted fake facial hair, makeup brushes and sponges, facial cleanser, general personal grooming items (hairbrush, comb, toothbrush, nail clippers, tweezers, razor), lighted makeup mirror.

Standard Disguise Kit Small disguise kit plus 2 or 3 changes of casual clothing, colored contact lenses, wigs, incidental props (eye patches, gold teeth, glasses, etc.), hair net or bandanna, soap and hand towels, hair dyes and colors (whitener, highlights, etc.).

Deluxe Disguise Kit Standard disguise kit plus wound and deformity prostheses with fake blood, full-face latex mask molds, detailed photographic records of potential subjects, minor props (canes, height-altering shoes, etc.), digital photo makeover software.

Object	Sz	Wt	Cost	Restr
Disguise Kit, Small	M	20.0	6	None
Disguise Kit, Standard	M	35.0	10	None
Disguise Kit, Deluxe	H	50.0	20	None

Table 86: Equipment, General Kits

Small Electronics Kit Wire crimper/cutter/stripper, screwdrivers (assorted small sizes), needle-nose pliers, soldering iron and roll of solder, flux, electrical tape (40'), epoxy glue, voltage meter, circuit tester, compressed air duster, wire (varying lengths and widths), assorted spare components (resistors, capacitors, screws, LEDs, etc.), assorted spare batteries, insulated gloves, pocket reference of component color codes and mathematical conversions.

Standard Electronics Kit Small electronics kit plus electrostatic mat, de-soldering iron/vacuum, personal oscilloscope, signal generator, table arm lamp with magnifying glass, common schematic manuals.

Deluxe Electronics Kit Standard electronics kit plus 2-person clean room, EPROM burner, oscilloscope, microscope, RF meter.

Object	Sz	Wt	Cost	Restr
Electronics Kit, Small	L	20.0	7	None
Electronics Kit, Standard	H	200.0	15	None
Electronics Kit, Deluxe	C	350.0	40	None

Table 87: Equipment, General Kits

Small First Aid Kit Adhesive bandages (various shapes and sizes), gauze (pads and rolls), elastic compress bandages, blister pads, wooden splints, latex gloves, thermometer, tweezers, razor blades, safety pins, cotton swabs (dry and alcohol-saturated), antibacterial soap, bottle of weak antiseptic solution, antibiotic cream, surgical tape, two 1d4 painkiller pills, antihistamine pills, antacid pills, salt tablets.

Standard First Aid Kit Small first aid kit plus CPR mask, nasopharyngeal airway, lubrication packets, stethoscope, shears, forceps, surgical needles and roll of suturing thread, burn gel, sedative pills, folding stretcher, antivenin solution, disposable syringes, blankets, stuffed animal, medical reporting forms and waterproof marker.

Deluxe First Aid Kit Standard first aid kit plus portable defibrillator, intravenous blood expander and fluid packs, oxygen tank and mask, backboard, cervical collar, local anesthetic solution, field surgical tools. This kit can be used as a surgery kit.

Object	Sz	Wt	Cost	Restr
First Aid Kit, Small	S	5.0	2	None
First Aid Kit, Standard	M	20.0	6	None
First Aid Kit, Deluxe	L	80.0	15	None

Table 88: Equipment, General Kits

Small Lockpicking Kit Picks and shims (assorted sizes and shapes), tweezers, stethoscope, screwdrivers (assorted small sizes), penlight.

Standard Lockpicking Kit Small lockpicking kit plus slim jim auto entry tools, keyhole saw, glass cutter, power drill, ball-peen hammer, metal files.

Deluxe Lockpicking Kit Standard lockpicking kit, plus key blanks, key grinder, lock samples (for practice, disassemble, and analysis), fiber optic probe, library of lock manufacturer's catalogs.

Object	Sz	Wt	Cost	Restr
Lockpicking Kit, Small	S	2.0	2	None
Lockpicking Kit, Standard	L	25.0	7	None
Lockpicking Kit, Deluxe	H	150.0	15	L

Table 89: Equipment, General Kits

Small Mechanics Kit Tool box, car jack, screwdrivers (assorted sizes), wrenches (assorted sizes), socket set, pliers (regular and needle-nose), metal file, hammer, measuring tape,pen flashlight, pressure gauge, waterproof markers, baling wire, epoxy glue, tape (duct, masking, and electrical), machine oil, wax, work gloves, safety goggles, professional solvents/cleaners, rubber gaskets, tarp, electrical wires and tubing, clamps, tap and die set.

Standard Mechanics Kit Small mechanics kit, plus diagnostic machine, timing light, electric drill, hacksaw, shop lights, hot glue gun, air blower, crowbar, snake light, paint sprayer.

Deluxe Mechanics Kit Standard mechanics kit, plus 1-ton crane, hydraulic car lift, bench lathe, bench vise, rotary saw, welding torch, air compressor, angle grinder, block and tackle.

Object	Sz	Wt	Cost	Restr
Mechanics Kit, Small	L	30.0	7	None
Mechanics Kit, Standard	H	100.0	15	None
Mechanics Kit, Deluxe	G	400.0	50	None

Table 90: Equipment, General Kits

Small Visual Art Kit Sketchpads of various sizes, colored chalk, art gum, pencils of various hardness and colors, a small watercolor set including 12 colors, various small brushes.

Standard Visual Art Kit Small visual art kit, plus pose-able wooden model, small cloth canvas, easel, set of various oil based paints with a color chart, calligraphy paper with brushes and various bottles of colored ink, and medium sized brushes.

Deluxe Visual Art Kit Standard visual art kit, plus plaster mix, pure pigments, mortar and pestle, water based paints, digital color analyzer, large cloth canvas, large brushes, paper of various textures and materials, hammer and chisel, and a beret.

Object	Sz	Wt	Cost	Restr
Visual Art Kit, Small	L	5.0	3	None
Visual Art Kit, Standard	L	10.0	10	None
Visual Art Kit, Deluxe	G	25.0	25	None

Table 91: Equipment, General Kits

Specialty Kits

While the kits listed provide bonuses to general aspects of skills, the specialty kits focus on a specific, but useful aspect of a skill. Specialty kits provide a bonus to a specific aspect of a skill.

Firearm Cleaning Kit A firearm cleaning kit contains various brushes, oils, bore cleaners, and polishes, that allow the maintaining of a firearm. Without one, it is impossible to maintain and clean a firearm. One cleaning kit will work for all types of firearms. A cleaning kit grants a +4 equipment bonus when restoring a weapon's unreliability level due to age.

Gunsmithing Kit Most gunsmiths assemble their toolkits gradually as their skills grow. This kit represents a complete collection typical for an experienced gunsmith, including watchmaker's screwdrivers, metal files, clamps, punches, a small hammer, and a micrometer calipers. It also contains a firearm cleaning kit (above) with brushes and rods suitable for all calibers and barrel lengths. A gunsmithing kit grants a +5 equipment bonus when repairing a firearm, building firearms, or when performing upgrades on any firearm.

Firearms Parts Kit A firearms parts kit is a collection of various firearm components, such as barrels, stocks, receivers, frames, pins, springs, and other miscellaneous hardware pieces used for creating firearms. Because it has a lot of the necessary components, lots of labor can be saved. A firearm parts kit grants a +20 equipment bonus when building a firearm, but is consumed after it has been used.

Basic Reloading Kit This reloading kit contains all of the tools necessary for reloading small arms ammunition, including powder measures, a single stage reloading press, a small balance scale, a case cleaner, and ballistics reference manuals, as well as the various dies needed to reload all kinds of ammunition. It allows a character to reload ammunition.

Advanced Reloading Kit This is the more advanced version of a basic reloading kit, containing contains all of the tools necessary for reloading small arms ammunition, including an automatic powder trickler, a turret reloading press with case, bullet and primer feeders, a digital scale, a case cleaner and polisher, a case resizer, a bullet puller and ballistics reference manuals, as well as the various dies needed to reload all kinds of ammunition. It allows a character to reload ammunition at a much faster rate and more accurately than the basic kit. It reduces the time it takes to reload a batch of ammo to 2 hours, and grants a +3 bonus to all Craft checks involving reloading.

Surgery Kit A surgery kit is a kit used for performing surgery, such as pulling out bullets and closing up wounds. It contains a box of latex gloves, surgical scissors, scalpels and extra blades, surgical needles and suturing thread, forceps, a small box of 20 disposable syringes, gauze (pads and rolls), sponges, surgical tape, cotton swabs (dry and alcohol-saturated), disinfectant solution, sedative pills, head-mounted pen flashlight, a small pack of surgical masks, sterile draping cloth, plastic safety goggles, surgical staple gun, local anesthetic and antibiotics, blood coagulant solution, suction bulb, clamps, intravenous blood expander, fluid packs, a rib spreader, bone saws, a heart monitor, a defibrillator, intravenous blood packs, an anesthesia tank and mask, and an oxygen tank and mask. A surgery kit grants a +4 equipment bonus while performing a surgery.

Forgery Kit A forgery kit is used in the finer points of creating fake documents, for creating borders, stamps, and papers. It includes a fine-edge knife set, ink pads with various inks, blank stamps, colored pens, paint and fine brushes, stencils, a magnifying glass, a disposable camera, a scale, calipers, tweezers, fine-grain sandpaper, a document scanner, a laminator, a foil press, a shrink wrapper, a table arm lamp with magnifying glass, holographic film, currency/document manual, a display case, a personal printing press, and casting supplies and various molding materials (plaster, plastic, etc.). It grants a +6 equipment bonus while creating forgeries.

Climbing Kit A climbing kit is a kit used to scale tall landmarks, such as buildings, rocks, or other objects. It contains a backpack or waist pack, rope (150 feet, rated for 1,200 pounds), a wristwatch altimeter, climbing harness, leather gloves and finger tape, rock shoes or crampons, carabiners, various markers, belayers, cams, quickdraws, ascenders, cordlettes, a chalk bag, pitons and a hammer, crampons, and an ice ax. It grants a +5 to Athletics checks while climbing, and on failing a check, a character does not completely fall from their height when they fail a check by 5 or more.

Fishing Kit A fishing kit is a kit used to fish leisurely, or in survival situations when one needs to survive out in the wilderness. The fishing kit includes one compact fishing pole with a small reel, 300' of 5lb test line, and various weights, hooks, and lures for use with multiple types of fish. A character can use this kit by making a Knowledge (Survival) check [TN15] to catch 2d4 NV worth of fresh meat in the form of fish every hour, as long as there is an area nearby with fish that they can catch.

Bow Fishing Kit A bow fishing kit is a kit used to fish leisurely, or in survival situations when one needs to survive out in the wilderness. The Bow fishing kit includes five fishing arrows or crossbow bolts, a reel, and 300' of 25lb test line. A bow or a crossbow is required to use this kit, and while this kit is being used with the bow or a crossbow, the bow or crossbow can not be used as a weapon. It takes 5 minutes to attach or remove the bow fishing kit from a bow or crossbow. A character can use this kit by making a Knowledge (Survival) check [TN15] to catch 2d4 NV worth of fresh meat in the form of fish every hour, as long as there is an area nearby with fish that they can catch.

Trapping Kit A trapping kit is a kit used to trap small animals in survival situations when one needs to survive out in the wilderness. The trapping kit includes multiple metal snares and cables, and various weights, hooks, pulleys and lures for use with multiple types of animals. A character can use this kit by making a Knowledge (Survival) check [TN15] to catch 2d4 NV worth of fresh meat every hour, as long as there is an area nearby with animals that can be caught.

Diving Kit A diving kit contains a single wetsuit, fins, weights, a dive computer, a face mask, and SCUBA gear. It grants a +10 equipment bonus to all Athletics checks to swim, extends the time one can swim to 3 hours per check, and allows a character to breathe underwater for 3 hours.

Authentication Kit An authentication kit is a kit used to verify the authenticity of documents, money, gold, and other types of valuable or important artifacts or objects. It includes a hand-held microscope, a magnifying glass, personal standard and black lights, an infrared viewer, a document scanner, a chemical analyzer, 3D modeling and comparison software, signature analysis software (DVD-ROM or flash drive), a video spectral comparator (with built-in microscope, video camera, and high-resolution color printer), and a back-illuminated comparison table. It grants a +6 while checking for forgeries.

Mess Kit A mess kit is a collection of silverware and cookware used during camping or when normal table setting is not possible. It includes cutlery (Fork and/or chopsticks, Knife, Spoon), a cup (holds 1 unit of liquid), a 6 spice pack (Pepper, Salt, Cayenne pepper, Garlic powder, Onion powder, and Curry) and a plate.

Object	Sz	Wt	Cost	Restr
Firearm Cleaning Kit	S	3.0	3	None
Gunsmithing Kit	L	20.0	20	None
Firearm Parts Kit	M	10.0	20	None
Basic Reloading Kit	H	50.0	25	None
Advanced Reloading Kit	H	90.0	70	None
Surgery Kit	L	35.0	40	None
Forgery Kit	G	120.0	20	None
Climbing Kit	H	30.0	18	None
Fishing Kit	S	2.0	2	None
Bow Fishing Kit	S	0.5	2	None
Trapping Kit	S	2.0	2	None
Diving Kit	S	25.0	15	None
Authentication Kit	G	170.0	40	None
Mess Kit	S	0.8	1	None

Table 92: Equipment, Specialty Kits

Computers and Consumer Electronics

Rules for operating computers appear under the Technology Use skill. Some of the items in this section have monthly subscription costs as well as initial purchase costs. The Wealth Point cost accounts for both costs; once a character has obtained the item, they don't have to worry about ongoing subscription costs.

Cell Phone A digital communications device that comes in a hand-held model, a cell phone works in any area covered by cellular service.

Standard This cell phone is the standard slide or flip phone, that can call, send and receive text messages. This phone has a battery life of five days before it needs recharging.

Smartphone These modern marvels are packed with all the latest features. Besides calling, receiving and sending text messages, these phones can also take pictures (at a –3 if using the Craft (Visual Art) skill), record sounds, use the internet and look up things (at a –4 if using the Technology Use Skill) and play music. This phone has a battery life of two days before it needs recharging. You can purchase higher end models with more space and RAM.

Computers and Upgrades Whether a desktop or notebook model, a computer includes a keyboard, a mouse, a monitor, speakers (or headphones), a BW-RE/DVD-RW drive, a network card, and the latest processor. A character needs a computer to make Technology Use checks. Computers can also run software modules. Computers have two major areas of software module slot storage: RAM and Storage.

The RAM represents how many module slots can be used at the same time. RAM is measured in module slots, and the module uses the same amount of module slots of RAM as it does of storage space. When a module is activated, it uses RAM slots equal to how many storage slots it takes up, in RAM. When it is deactivated, it no longer takes up that spot in RAM, but is still located in storage.

The Storage represents how many modules can be Stored on the computer at one time. A module is installed onto the storage, and is activated at will. The module will always sit in storage unless it is uninstalled.

Desktop Bulky but powerful, these machines are common on desks everywhere. Desktops can accept up to 10 additional RAM upgrades and 2 additional storage device upgrades.

Notebook Slim, lightweight, and portable, notebook computers have most of the functions available on desktop computers. Notebooks also have a wireless network card in addition to their wired network card. Notebooks can accept up to 10 additional RAM upgrades and 1 additional storage device upgrades.

Tablet A tablet computer is a computer that consists of nothing but a touch screen. They interface completely wirelessly, and usually only contain two slots: the charging port which doubles as a data port and the headphone jack. They are significantly smaller than even the smallest of notebooks, and are extremely portable. You can purchase higher end models with more storage and RAM built in, but you can not upgrade tablet computers. Tablets can also be used to take pictures (at a –3 if using the Craft (Visual Art) skill), record sounds, use the internet and look up things (at a –4 if using the Technology Use Skill) and play music.

Ram Upgrade This upgrade increases the RAM on a desktop or notebook. Each upgrade increases the RAM of a computer by 1.

Storage Upgrade This upgrade installs an additional digital storage device in the desktop or notebook. The cost and amount given is determined by what device is selected.

Digital Storage Devices Digital storage devices are devices that store digital data. They hold software modules and data. They come in two forms: Portable and Fixed.

Portable digital storage devices are devices of magnetic, optical, or solid state media that are easily moved between computers, usually utilizing a port on the machine of a desktop, notebook, tablet, or phone. They can hold and store modules and data, but due to the limited bandwidth these devices have, software modules can not be run from them.

Fixed digital storage devices are devices of magnetic, optical, or solid state media that are not easily moved between computers, instead installed in upgrade slots of desktops or notebooks. What they lose in portability, they gain in storage size and access speed. Software modules can be run from fixed digital storage devices.

Object	Sz	Wt	Cost	RAM	Storage	Restr
Cell Phone, Standard	D	0.4	1	0	1	None
Cell Phone, Smartphone, Basic	D	0.5	12	1	3	None
Cell Phone, Smartphone, High end	D	0.5	21	2	6	None
Desktop Computer	L	10.0	16	1	8	None
Notebook Computer	M	2.2	20	1	8	None
Tablet, Basic	S	1.3	20	1	6	None
Tablet, High End	S	1.3	30	2	8	None
Ram Upgrade	F	0.1	2	1	–	None
Digital Storage Device, Portable, Fine	F	0.1	2	–	2	None
Digital Storage Device, Portable, Diminutive	F	0.1	4	–	4	None
Digital Storage Device, Portable, Tiny	F	0.1	6	–	8	None
Digital Storage Device, Portable, Small	F	0.1	8	–	16	None
Digital Storage Device, Fixed, Large	S	0.5	10	–	32	None
Digital Storage Device, Fixed, Huge	S	0.5	12	–	64	None
Digital Storage Device, Fixed, Gargantuan	S	0.5	14	–	128	None
Digital Storage Device, Fixed, Colossal	S	0.5	16	–	256	None

Table 93: Equipment, Computer Hardware

Software Modules Software modules are programs installed that give the user of a computer a bonus to various things, dependent on what they are programmed to do. Modules come in three varieties:

- **Lite** A lite module has the bare essentials necessary for use and has a lighter footprint to take up less space. This module

provides a +1 to all bonuses listed in the module description unless specified otherwise and takes up 1 storage slot.

- **Standard** A standard module contains most of the core features that most would find useful, leaving out only a few specialized programs. This module provides a +3 to all bonuses listed in the module description unless specified otherwise and takes up 2 storage slots.
- **Full-featured** Contains all of the features that anyone could ever need or use, sparing no expense. Because of this, they take up a significant amount of space. This module provides a +4 to all bonuses listed in the module description unless specified otherwise and takes up 3 storage slots.

Base This software module is the OS for all computer hardware. It contains the software necessary to load additional modules, as well as a web browser, an audio and video player, a clock and calendar, a text editor, a calculator, some basic games, and a basic image viewer and editor. All computer hardware is preloaded with this software, it takes up no RAM, but does take up 1 storage slot and is always active.

Data This software module is a quick look up resource, consisting of volumes of information about specific subjects, that can be called upon in an instant. This software module provides a bonus to any one Knowledge skill that it is programmed for and must be active to receive the bonus.

Music This software module provides assistance when playing a musical instrument, singing, or performing stand-up, by relaying information such as pitch, octave, tone, and harmonies, as well as a wide database of free and public domain sheet music that can be played. The software module also can be used by beginners for hand placement, and instruction when learning an instrument. This software module also features musical detection software, that will listen to songs and produce information on the song such as composer, key, and if available, sheet music. This software module provides a bonus to any one Perform check that it is programmed for, and must be active to receive the bonus.

Medical This software module contains various schematics for bandages, tourniquets, anatomy and physiology, as well as instructions on how to give first aid. This software module provides a bonus to all Treat Injury checks as long as the software module is active.

Lockpick This software module provides schematics for various types of locks, dials, safes, and combinations, as well as a real time database consisting of compiled notes on specific models to aid in the disabling of various locks, and area denial objects. This software module provides a bonus to all Disable Device checks as long as the module is active.

EOD This software module provides common bomb schematics, timer, and suggestions for diffusion and disassembly for bombs, IEDs, and other explosive devices, as well as construction advice and instructions, as well as planting suggestions based on the target to be detonated. This software module provides a bonus to all Demolitions checks as long as the module is active.

Object	Cost	Restr
Data, Lite	3	None
Data, Standard	12	None
Data, Full	20	None
Music, Lite	2	None
Music, Standard	8	None
Music, Full	12	None
Medical, Lite	6	None
Medical, Standard	14	None
Medical, Full	22	None
Lockpick, Lite	2	None
Lockpick, Standard	8	L
Lockpick, Full	12	L
EOD, Lite	10	R
EOD, Standard	18	M&P
EOD, Full	40	M&P

Table 94: Equipment, Computer Software

Cameras Still and video cameras let a character capture a record of what they have seen. A camera is needed to use the photography aspect of the Craft (Visual Art) skill.

Commercial Grade Encompassing hundreds of "brick" digital cameras and flash video cameras, these cameras are quick point and shoot, and can take hundreds of pictures before needing to be downloaded.

Professional Grade These DSLR cameras and High Definition Video Cameras are used by professional photographers for their high detail, granting a +1 to Craft (Visual Art) skill checks.

Radio This hand-held radio transceiver communicates with any similar device operating on the same frequency and within range.

Basic This dime-store variety has only a few channels. Anyone else using a similar radio within range can listen in on the character's conversations. It has a range of 2 miles.

Professional This high-end civilian model allows a character to have a wide selection of channels, making it likely that the character can find a frequency that's not being used by anyone else within range. The device can be used with or without a voice-activated headset (included). It has a range of 15 miles.

Object	Sz	Wt	Cost	Restr
Camera, Commercial	T	0.8	3	None
Camera, Professional	S	2.0	13	None
Radio, Basic	T	1.3	1	None
Radio, Professional	T	2.1	4	None

Table 95: Equipment, Consumer Electronics

Weapon Accessories

Weapon accessories include holsters and sheaths to hold weapons, quivers and ammo pouches to keep ammunition close by, as well as cases to store larger weapons.

Holsters A device used to hold or restrict the undesired movement of a firearm, most commonly in a location where it can be easily withdrawn for immediate use. Holsters allow a character to draw a firearm for 3 Combat Points. Holsters are generally available for all Medium or smaller firearms. A character can not have more than 5 belt devices on their belt at one time, including holsters, holders, caddys, and sheaths.

Belt Holster A simple, no-frills holster that slips through a belt and is usually made of leather or kydex. It holds any Medium or smaller firearm. Because of its placement, it can only be concealed with outerwear and even then it grants a –4 penalty to all Stealth checks to hide the gun.

Concealed Carry Holster This holster is worn on the belt inside the waistband or in the small of the back. This holster grants a +2 bonus to Stealth checks to hide all Small or smaller guns.

Pocket Holster This holster may be a fake wallet or a formed stiff cloth that helps to break up the pattern of a firearm in a pocket. This holster grants a +3 bonus to Stealth checks to hide all Tiny or smaller guns.

Ankle Holster This holster is a holster that attaches to the ankle, providing concealment for the weapon without worrying about printing or showing the weapon accidentally. This holster grants a +4 bonus to Stealth checks to hide all Tiny or smaller guns, but the Combat Point cost to draw the firearm is 3 points more.

Tactical Holster and Caddy This holster is worn on the thigh, with a strap attaching it to the belt, or on the hip, attached to a belt. It also comes with a tactical caddy, which can be purchased in any combination of two, to hold handgun magazines, speedloaders, taser cartridges, standard flashlights, three shotgun shells, six loose cased rounds, or pairs of handcuffs. A tactical caddy can be purchased to hold a single handgun magazine and a pair of handcuffs, for example. A tactical caddy can also be purchased to hold a single PDW or rifle magazine that holds 20 rounds or less, or a single shotgun magazine that holds 5 rounds or less. Using a tactical caddy eliminates the need to spend CP to reach into a pocket or bag to retrieve the holstered items. A tactical caddy can also be purchased by itself for 1 WP.

Shoulder Holster This holster uses a set of straps around both of the wearer's shoulders to stash the gun under one armpit, with pouches for two handgun magazines or speedloaders, a second gun, a small melee weapon, nine loose shotgun shells, fifteen loose cased rounds, a single PDW or Rifle magazine that holds 30 rounds or less, or a single shotgun magazine with a capacity of 7 rounds or less, under the opposite armpit to balance the weight. Using a shoulder holster eliminates the need to spend CP to reach into a pocket or bag to retrieve the holstered items, but not to unholster a weapon. This holster grants a +1 bonus to Stealth checks to hide all small and smaller guns and melee weapons when worn with outerwear.

Undercover Holster This holster is padded to break up the outline of a firearm, usually worn on the small of the back. It grants a +6 stealth to hide all Small or smaller guns, however it costs 6 additional Combat Points to draw the firearm from this holster.

Tummy Holster An elastic band worn under a shirt that holds a firearm, as well as two spare magazines, right against the abdomen region. It grants a +4 bonus to Stealth checks to hide all Small or smaller guns, however it costs 4 additional Combat Points to draw the firearm from this holster.

Quick Draw Holster This holster, worn on the belt or hip, is designed for characters who wish to have a faster draw with their weapon. A quick draw holster is designed for a specific firearm, and can not be used with any other firearm but the one it was designed for. A quick draw holster can be purchased for all Medium or smaller firearms. When drawing from a quick draw holster it cost 1 less Combat Point.

Gun Belt A loose leather holster that allows the gun to sit comfortably in the holster, commonly used with single action revolvers, but it can be purchased for any Medium or smaller gun. The single gun holster holds one gun and 36 extra cartridges on the belt, and the dual gun holster holds two guns and 24 extra cartridges on the belt. The shotgun version of this holster can hold a single gun, and 15 shotgun shells.Using a gun belt eliminates the need to spend CP to reach into a pack to retrieve ammunition. Wearing a gun belt disallows the wearing of a belt holster, quick draw holster, tactical holster, concealed carry holster, undercover holster, battle belt or a cartridge belt, when worn.

Sheaths A sheath is a device used to restrict the movement of a melee weapon, most commonly located where it can easily withdrawn for immediate use, and kept out of the way when not being used. Sheaths are generally available for all large or smaller melee weapons. A character can not have more than 5 belt devices on their belt at one time, including holsters, holders, caddys, and sheaths.

Concealed Sheath This sheath is a worn on the inside of the waistband. This sheath grants a +2 bonus to Stealth checks to hide all Small or smaller melee or thrown weapons.

Shoulder Sheath This sheath uses a set of straps around both of the wearer's shoulders to stash two melee weapons, one under each armpit. This holster grants a +1 bonus to Stealth checks to hide all Small or smaller weapons, when worn with outerwear.

Holdout Sheath This sheath is an ankle strap or thigh clip. Grants a +2 bonus to Stealth checks to hide all Tiny or smaller melee or thrown weapons.

Tactical Sheath This sheath is worn either on the back attached to a strap or on the hip attached to a belt. A tactical sheath can fit any Huge or smaller melee weapon.

Undercover Sheath This sheath is padded to break up the outline of a weapon, and is usually worn on the small of the back or in a pocket. It grants a +6 bonus to Stealth checks to hide all Small or smaller weapons, however it costs +6 Combat Points to draw a weapon from this sheath.

Combat Sheath This sheath is reinforced with a steel lining on the outside of the sheath, allowing it to be used as a weapon, if need be. Sheaths are considered one size smaller than weapons they carry. The damage of a combat sheath is determined by the size of the weapon it carries. Sheaths

are considered simple weapons for the purpose of feats and proficiency.

Size	Damage	Wt	Cost	Restr
Tiny to Diminutive	1d3	0.9	3	None
Small	1d4	1.1	4	None
Medium	1d6	1.4	6	None
Large	2d4	1.8	9	None
Huge and larger	2d6	2.0	11	None

Table 96: Combat Sheath

LBE Gear Load Bearing Equipment is equipment used to carry a fighting load, and keep it handy at all times. When using a LBE rig, the weight of all weapons and equipment in the rig is halved. LBE gear can be worn over any armor that doesn't have any MOLLE slots or attachments. They are also printed in camouflage patterns: woodland, desert, winter, urban (gray patterned), and black are available. When worn in an appropriate setting, LBE gear grants a +2 bonus on Stealth checks. Using LBE gear eliminates the need to spend CP to reach into a pocket or bag to retrieve ammunition or magazines/speedloaders stored on the LBE gear, but not holstered weapons or items.

Pistol Rig A pistol rig has a tactical holster, spaces for six handgun magazines or speedloaders, two canteen pouches, a grenade loop that can hold a single grenade and two utility pouches, that can comfortably hold 6 lbs of Small or smaller objects each.

PDW Rig A PDW rig has spaces for six SMG or machine pistol magazines with a capacity of 60 rounds or less, two canteen pouches, two grenade loops that can hold a single grenade each, and a utility pouch that can comfortably hold 6 lbs of Small or smaller objects.

Hunting Rig A hunting rig has shell/cartridge loops that can hold forty shotgun shells or loose cartridges, two canteen pouches, two grenade loops that can hold a single grenade each and two utility pouches that can comfortably hold 6 lbs of Small or smaller objects.

Rifle Rig A rifle rig has spaces for four rifle magazines with a capacity of 60 rounds or less, two canteen pouches, two grenade loops that can hold a single grenade each, and a utility pouch that can comfortably hold 6 lbs of Small or smaller objects.

Machinegun Rig A machinegun rig has spaces for two linked boxes or magazines with a capacity of 300 rounds or less, two canteen pouches, two grenade loops that can hold a single grenade each, and a utility pouch that can comfortably hold 6 lbs of Small or smaller objects.

Concealment Case A case disguised as an inconspicuous object, such as a guitar case, violin case or sports bag, that has a secret compartment for storing a Large or smaller weapon. A concealment case can comfortably hold a single Large weapon, two Medium weapons, four Small weapons, eight Tiny weapons, or sixteen Diminutive weapons. The case grants a +10 bonus to Stealth checks when hiding a Large or smaller weapon within it.

Roll Case A soft case designed to be rolled up while carried. It allows for the storing of both weapons and ammunition in the same place securely. A small roll case can hold a single firearm of Medium size or smaller and 40 rounds of ammunition, with the larger version holding two Medium sized weapons or smaller and 100 rounds of ammunition.

Quiver A container for arrows or crossbow bolts worn either on the back attached to a strap, or on the hip attached to a belt. A quiver can hold 20 arrows or crossbow bolts.

Removable Magazine A device that stores cartridges in an encasing, that is removable from the firearm. The magazine functions by moving the cartridges stored in the magazine into a position where they may be loaded into the chamber by the action of the firearm. For weapons that use a removable magazine, a character can purchase extras. Loading these extra magazines ahead of time and keeping them in a handy place makes it easy to reload a weapon in combat. The price and capacity of a removable magazine is listed with the weapon's statistics.

Double-Magazine Clip Sometimes referred to as a "jungle-style magazine", this accessory binds two machine pistol, rifle, SMG, machine gun, or shotgun box magazines together for quicker reloading, allowing the user to perform one reload at 1 less Combat Point, and negates the need to reach into a pack to retrieve the stored magazine. The character must be proficient in the weapon he is using in order to take advantage of this accessory. A character may also duct tape two magazines together for the same effect but the weapon gets a –5 penalty to Stealth checks to hide the weapon when using this method. The clip must be purchased for a specific type of magazine, and is not compatible with any other magazine. The clip can not hold two magazines that have a capacity of more than 50 cased rounds, or 10 shelled rounds.

Speedloader A speedloader holds a number of cartridges in a ring, in a position that mirrors the chambers in a revolver cylinder. Using a speedloader saves time in reloading a revolver, since a character can insert all the cartridges at once, however a character has to remove all of the cartridges, both fired and unfired, from the revolver's cylinder. Speedloaders come in sizes from five to nine rounds, in various calibers. Speedloaders can be purchased in any size and any caliber, and cost 1 WP per 2 speedloaders in that configuration.

Cartridge Wallet A wallet made of cloth or leather and keeps ammunition dry and separated. Cartridge wallets can be made for any caliber and hold 10 cartridges. They are often used for special ammunition that is best kept away from general ammunition.

Shell Belt A belt that is specially made to hold 25 shotgun shells for quick access but disallows the wearing of any holster or gunbelt when worn. Using a shell belt eliminates the need to spend CP to reach into a pack to retrieve ammunition.

Shell Bag A canvas bag worn on the waist that holds up to 45 shotgun shells for quick access. It doesn't keep the shells separated and multiple shells will often mix up in the bag. Using a shell bag eliminates the need to spend CP to reach into a pack to retrieve ammunition.

Shell Caddy A small metal caddy worn on the belt, that discreetly holds 4 shotgun shells for quick access. Because of its size, it is easily concealable and grants a +3 to all Stealth checks to hide it. Using a shell caddy eliminates the need to spend CP to reach into a pack to retrieve ammunition. A character can not have more than 5 belt devices on their belt at one time, including holsters, caddys, and sheaths.

Magazine Caddy A small metal or plastic caddy worn on the belt and holds a single rifle or SMG magazine with a capacity of 30 rounds or less, or a single shotgun magazine with a capacity of 10 rounds or less. Using a magazine caddy eliminates the need to spend CP to reach into a pack to retrieve ammunition. A character can not have more than 5 belt devices on their belt at one time, including holsters, caddys, and sheaths.

Cartridge Belt A cartridge belt is a belt that is specially made to hold 55 cased rounds for quick access, but disallows the wearing of a belt holster, quick draw holster, tactical holster, concealed carry holster, undercover holster, battle belt or a gunbelt when worn. Using a cartridge belt eliminates the need to spend CP to reach into a pack to retrieve ammunition.

Battle Belt A battle belt is a belt that has MOLLE loops on it, allowing for a customized belt. It has 5 MOLLE slots, but can not be ugraded with any other MOLLE slots. A Battle belt disallows the wearing of a belt holster, quick draw holster, tactical holster, concealed carry holster, undercover holster, or a gunbelt when worn.

Bandolier A strap of leather or nylon webbing that is worn around the shoulder and holds ammunition or objects. Commonly worn when hunting or to carry more items readily available. Using a bandolier eliminates the need to spend CP to reach into a pack to retrieve a stored object but also makes it clearly visible.

Shell Bandolier Holds 60 shotgun shells.

Cased Round Bandolier Holds 45 rounds of cased ammunition.

Grenade Bandolier Holds 8 grenades of either the thrown or fired variety.

Powder Horn and Bullet Bag A powder horn is a leather, ivory, bone, or metal container that holds 1.0 lb of black powder. A bullet bag is a leather bag that holds 60 lead balls for black powder weapons.

Percussion Caps A percussion cap is a cap used to ignite all percussion firearms. Percussion caps come in 500 cap tins.

Black Powder The propulsion used to propel the lead balls down the barrel.

Propellant Pellets These are pressed black powder substitutes pressed into a pellet for easy loading, but can only be used by modern muzzleloaders. The user can load one pellet for a light load, two pellets for a standard load, and three pellets for a heavy load. When using propellant pellets, the Combat Point cost to reload a black powder muzzle-loaders is reduced by 6.

Refill Tube A plastic tube that holds 100 paintballs for quick reloading. Comes with a harness to hold the tubes on one's belt for easy access

Linked Ammunition Box This is a plastic, cloth, or metal box that is used to hold linked ammunition. These boxes come in various sizes. Linked ammunition not in linked ammunition boxes is restricted to 50 rounds per belt.

Stripper Clips Stripper clips are used to keep ammunition together in order to facilitate faster reloading of magazines or firearms with internal magazines. Custom caliber stripper clips are of the stripper clip variety only, not enbloc.

Box Capacity	WP	Restr
75 Rounds	1	None
100 Rounds	2	None
150 Rounds	3	None
200 Rounds	3	None
250 Rounds	4	None

Table 97: Equipment, Linked Ammunition Box

Caliber	Capacity	Clips/WP	Restr
5.56x45mm/.300 AAC Blk	10	40	None
7.62x51mm	5	20	None
7.62x51mm	10	40	None
.30-06 Springfield	5	10	None
M1 Garand Enbloc	8	10	None
Berthier Enbloc	5	3	None
7.62x39mm/5.45x39mm	10	40	None
7.62x54mmR	5	20	None
.303 British	5	15	None
7.63x25mm Mauser/7.62x25mm Tokarev	10	20	None
7.92x57mm Mauser/7x57mm Mauser	5	20	None
7.63 Mannlicher	8	10	None
7.7x58mm Arisaka	5	20	None
6.5x50mm Arisaka	5	15	None
Carcano Enbloc	6	5	None
Fusil Enbloc	5	5	None
9x23mm Steyr	8	10	None
Any Caliber	5	5	None
Any Caliber	10	3	None

Table 98: Equipment, Stripper Clips

Object	Sz	Wt	Cost	Restr
Double Magazine clip	T	0.3	4	None
Speedloader (2)	T	0.5	1	None
Shell Belt	M	1.0	3	None
Cartridge Belt	M	1.0	3	None
Battle Belt,	M	1.5	3	None
Bandolier, Shell	M	2.0	2	None
Bandolier, Cased Round	M	2.0	4	None
Bandolier, Grenade	M	2.0	1	None
Shell Bag	S	1.0	1	None
Shell Caddy	D	0.4	1	None
Magazine Caddy	D	0.4	2	None
Cartridge Wallet	S	0.4	1	None
Refill Tube (4)	S	6.0	1	None
Concealment Case	L	4.0	5	None
Quiver	S	0.9	1	None
Roll Case, Small	L	2.0	2	None
Roll Case, Large	L	2.8	4	None
Holster, Belt	S	1.0	1	None
Holster, Pocket	T	0.5	2	None
Holster, Concealed Carry	S	0.6	2	None
Holster, Ankle	T	0.6	4	None
Holster, Tactical	S	1.2	2	None
Holster, Shoulder	M	1.0	3	None
Holster, Quick Draw	S	2.0	9	None
Holster, Tummy	S	0.6	3	None
Holster, Undercover	S	0.8	6	None
Holster, Gunbelt	M	3.0	4	None
Sheath, Concealed	S	0.5	1	None
Sheath, Holdout	T	0.4	1	None
Sheath, Tactical	—	0.8	1	None
Sheath, Shoulder	M	0.8	3	None
Sheath, Undercover	S	0.4	5	None
LBE Gear, Pistol Rig	M	2.0	3	None
LBE Gear, PDW Rig	M	2.0	2	None
LBE Gear, Hunting Rig	M	2.0	2	None
LBE Gear, Rifle Rig	M	2.0	2	None
LBE Gear, Machinegun Rig	M	2.0	3	None
Powder Horn and Bullet Bag	S	2.0	1	None
Percussion Caps (500)	T	0.6	1	None
Black Powder	S	1.0	2	None
Propellant Pellets (200)	T	1.1	2	None

Table 99: Equipment, Weapon Accessories

Survival, Security and Professional Gear

This is a list of gear that can be useful to characters. While this book is not here to catalog every single item a character can use, it is a guide. If a character wishes to purchase something not in the book, the GM can simply set a wealth point cost based on the real cost of the item, where 1 WP is equal to 20 USD.

Metal Detector This handheld device provides a +10 bonus on all Perception checks involving metal objects.

Flare Gun When fired into the air at night, a flare illuminates a 60' radius as if lit by daylight for 10 rounds. When used as a signal, a flare may be spotted at a distance of 5 miles with a successful Perception check, [TN20] during the day or [TN15] at night. A flare gun may also be used as a weapon, having a maximum range of 40' and doing 1d4 Fire damage. Anyone shot with a flare gun must make a Reflex Saving Throw [TN15] or be caught on fire. A flare gun can also ignite flammable material and fluids.

Bolt Cutter An exceptionally heavy wire cutter, a bolt cutter can snip through padlocks or chain-link fences. Using a bolt cutter requires a STR check [TN10].

Duct Tape The usefulness of duct tape is limited only by a character's imagination. Duct tape can support up to 200 pounds indefinitely or up to 300 pounds for 1d6 rounds. Characters bound with duct tape must make a STR check [TN20] to free themselves. A roll provides 70 feet of 2 inch wide tape.

Bluetooth headset Cheap and promiscuously available, these headsets allow you to communicate hands-free. All cell phones and professional-level radios can sync with them.

Musical Instruments A musical instrument is a device created or adapted for the purpose of making musical sounds. A character cannot use any Perform skills that involve instruments without a musical instrument.

> **Keyboard** A portable keyboard or Keytar needed to use the Perform (Keyboard Instrument) Skill.
>
> **Percussion** A set of drums needed to use the Perform (Percussion Instrument) Skill.
>
> **Stringed** An electric or acoustic guitar, a harp, a sitar, or various other stringed instruments needed to use the Perform (Stringed Instrument) Skill.
>
> **Wind** A flute, trumpet, french horn, saxophone or various wind instruments needed to use the Perform (Wind Instrument) skill.

Shovel A shovel is a tool for lifting and moving loose material such as coal, gravel, snow, soil, or sand. This particular variant is an entrenching tool, a compact version of the full sized shovel. When pressed into battle as a weapon, it carries the same stats as a shortsword, but always has a –2 to attack as it is an improvised weapon.

Caltrops Caltrops are four-pronged steel spikes designed so that one prong is pointing up when the caltrop rests on a surface. A character scatters caltrops on the ground to injure opponents, or at least slow them down. One bag of twenty-five caltrops covers a single 5' square. Each time a creature moves through a square containing caltrops at any rate greater than 15 feet a turn or each round a creature spends fighting in such an area, the caltrops make a touch attack roll (BAB +0). A caltrop deals 1 point of damage on a successful hit, and the injury reduces foot speed to 2 Combat Points per 5' (a successful Treat Injury check [TN15] or one day's rest removes this penalty). Improvised versions of this weapon include jacks and d4 gaming dice. These improvised weapons do not work on vehicles, however. See the avoid hazard stunt for the effect of caltrops on vehicles.

Ball Bearings Ball bearings are little metal balls, often used to maintain the separation between bearing races, for bearings. One bag of 100 ball bearings covers a single 5' square thoroughly. Each time a creature moves through a square containing ball bearings or each round a creature spends fighting in such an area, the character makes a Reflex Saving Throw [TN16] or be knocked prone. Improvised versions of this weapon include marbles.

Binoculars Binoculars are useful for watching opponents, wild game, and sporting events from a long distance.

> **Standard** Standard binoculars reduce the range penalty for Perception checks to –1 for every 50' (instead of –1 for every 10'). Using binoculars for Perception checks takes five times as long as making the check unaided.
>
> **Rangefinding** In addition to the benefit of standard binoculars, rangefinding binoculars include a digital readout that indicates the exact distance to the object on which they are focused.
>
> **Night Vision Binoculars** Night vision binoculars function the same as standard binoculars in normal light. In darkness, however, users looking through them see as if they were using night vision goggles.

Camp Axe This axe can be used to chop down small trees, as an impromptu weapon, or to hammer in stakes for a tent.

Flare A flare is a bright chemical burning reaction in a stick, that negates penalties for darkness within its illuminated areas. It projects light in a 40' circle from itself, and lasts for 1 hour per flare. Once activated, it can't be turned off or reused. It can also be used to immediately set any flammable material or substances ablaze.

Compass A compass relies on the Earth's magnetic field to determine the direction of magnetic north.

Chemical Light Stick This disposable plastic stick, when activated, uses a chemical reaction to create light for 6 hours. It projects light in a 10' circle from itself. Once activated, it can't be turned off or reused.

Flashlight Flashlights come in a wide variety of sizes and quality levels. Those covered here are professional heavy-duty models rugged enough to withstand the rigors of heavy modern use. Flashlights negate penalties for darkness within their illuminated areas. All flashlights can be purchased with infrared or ultraviolet modes, increasing the WP cost by 2 per extra mode. When in infrared mode, the flashlight has its range multiplied by 6.

Penlight This small flashlight can be carried on a key ring. It projects a beam of light in a 10' cone. There are wearable versions of these flashlights that can be clipped to clothing to facilitate hands free usage, which cost +1 WP of the listed price.

Standard This heavy metal flashlight projects a beam in a 30' cone. There are wearable versions of these flashlights that can be clipped to clothing to facilitate hands free usage, which cost +1 WP of the listed price.

Battery Flood Practically a handheld spotlight, this item projects a bright beam in a 100' cone.

Lantern A camp lamp that projects light in all directions. It projects a 40' radius of light.

Rope 200 feet of paracord that can support up to 500 pounds.

Tent A tent keeps a character warm and dry in severe weather, providing a +2 equipment bonus on Fortitude Saving Throws against the effects of cold weather.

Multipurpose Tool This device contains several different screwdrivers, two knife blades(Escape Knife), a can and bottle opener, a file, a short ruler, scissors, tweezers, and wire cutters. The whole thing unfolds into a handy pair of pliers. A multipurpose tool can lessen the penalty for making Craft (Mechanical), Craft (Electronics), Craft (Structural), Demolitions, or Disable Device checks without appropriate tools to –4 instead of the normal –6. The tool is useful for certain tasks as determined by the GM, but may not be useful in all situations.

Canteen A water bottle designed to be used by hikers, campers, soldiers, and workers in the field. Holds 8 units of liquid.

Fire Extinguisher This portable apparatus uses a chemical spray to extinguish small fires. The typical fire extinguisher ejects enough extinguishing chemicals to put out a fire in a 10'-by-10' area and contains enough material for two such uses. It does 1d4 Cold damage when sprayed.

Handcuffs Handcuffs are restraints designed to lock two limbs—normally the wrists—of a prisoner together. They fit any Medium-size or Small human or other creature that has an appropriate body structure.

Steel These heavy-duty cuffs have Hardness 10, 10 HP, Break [TN30], and require a Disable Device check [TN25] or Acrobatics check [TN35] to remove without the key.

Zip-Tie These are single-use disposable handcuffs, much like heavy-duty cable ties. They have Hardness 0, 4 HP, Break [TN25]. They can only be removed by cutting them off, Disable Device and Acrobatics checks automatically fail.

Map While a compass or GPS receiver can help characters find their way through the wilderness, a map can tell a character where they're going and what to expect when they get there.

Road Atlas Road atlases are available for the entire Country and show all major roads in each state/providence/territory. They can also be purchased for most major metropolitan areas and detail every street in the entire region.

Tactical Map A tactical map covers a small area—usually a few miles on a side—in exacting detail. Generally, every building is represented, along with all roads, trails, and areas of vegetation. Tactical maps are not available for all areas and generally need to be ordered from federal mapping agencies, while not expensive they can take a week or longer to obtain.

Lighter This is either an oil or butane cigarette lighter that can be used to create fire at a moment's notice.

Matches For the cigar connoisseur or one who simply likes to strike wood to seem dramatic, these matches come in a large batch. The price listed is for one hundred boxes of twenty matches.

Sleeping Bag This lightweight sleeping bag rolls up compactly. It can keep a character warm even in severe weather, providing a +1 equipment bonus on Fortitude Saving Throws against the effects of cold weather.

Parachute A parachute is a device used to slow down an object in free fall through an atmosphere. They come in various types, based on use, but all stop fall damage from heights greater than 100' and reduce falling damage by 1 die per round spent descending.

Military Parachute A typical circular canopy used for static line jumps. A standard military chute has limited maneuverability, being designed for simplicity and reliability. These parachutes fall straight down.

Reserve Parachute A small emergency parachute designed to be worn on the chest and used if the jumper's main chute fails. A reserve chute is a lifesaving, rather than aerobatic device, and do not possess the maneuverability that sports parachutes have. These parachutes fall straight down.

Sports Parachute A rectangular aerobatic parachute. Consumer models tend to be brightly-colored for aesthetic appeal and emergency visibility, but a character can purchase a darker parachute at request. Sports parachutes allow a character to glide at 200 feet per round forward as they fall, as well as make a turn after moving 100 feet.

BASE Jumping Parachute A high drag parachute used for jumping off of static structures such as bridges and skyscrapers. These parachutes fall straight down.

Battering Ram A battering ram is rather self explanatory, a heavy metal ram used to knock down doors. When using it to break down a door, the character is considered to have +4 STR.

Object	Sz	Wt	Cost	Restr
Metal Detector	S	14.0	2	None
Bluetooth Headset	D	0.1	2	None
Bolt cutter	M	5.0	1	None
Multipurpose tool	T	1.0	3	None
Shovel	S	2.0	2	None
Caltrops (25)	S	0.1	2	None
Ball Bearings(100)	S	0.4	1	None
Duct tape	T	2.0	1	None
Canteen (2)	S	1.0	1	None
Parachute, Military	L	6.0	22	None
Parachute, Reserve	M	1.0	30	None
Parachute, Sports	L	8.0	25	None
Parachute, BASE Jumping	L	10.0	28	None
Handcuffs, Steel	T	1.0	2	None
Handcuffs, Zip-tie (10)	D	0.5	1	None
Instrument, Keyboard	L	12.3	13	None
Percussion Instruments	H	50.0	14	None
Stringed Instruments	L	7.0	10	None
Wind Instruments	T	1.0	8	None
Camp Axe	S	2.0	2	None
Flare (2)	T	0.5	1	None
Binoculars, Standard	S	2.0	2	None
Binoculars, Rangefinding	S	3.0	8	None
Binoculars, Night Vision	S	4.0	12	None
Chemical Light Sticks (5)	T	0.2	1	None
Compass	D	0.1	2	None
Fire Extinguisher	M	2.0	2	None
Flashlight, Penlight	D	0.6	1	None
Flashlight, Standard	T	0.9	2	None
Flashlight, Battery Flood	S	2.0	5	None
Flashlight, Lantern	S	2.3	4	None
Road Atlas	T	0.6	3	None
Tactical Map	T	0.5	5	None
Rope (200')	L	12.0	1	None

Table 100: Equipment, Survival, Security, & Professional Gear

Band-It The band-it is an elastic sleeve that is placed on prisoners leg or arm, that has a remote transmitter with a matching remote. When activated, it sends a strong electrical pulse through the wearer's body, that incapacitates the person wearing it. When Activated, the band-it, the wearer of the band-it must make a Fortitude Saving Throw [TN17] or be paralyzed for 1d4 rounds. The band-it comes with one remote that has a 200 foot range.

Spotting Scope A spotting scope is a highly magnified scope that is used for target identification, hit confirmation, and assisting a sniper in acquiring a target. When used by a spotter who is within hearing range of a sniper, and is able to see the same targets the sniper can see using the spotting scope, the sniper gains a bonus to all ranged attacks equal to the spotter's ranged attack bonus, as long as the spotter is spotting for that sniper. Spotting for a sniper uses all of the character's combat points per round. Only one sniper can take advantage of a spotter and their scope at a time.

Hearing Protection Hearing protection are plugs, earmuffs, or molded inserts that protect the wearer against loud noises, often worn by people firing firearms or working with heavy machinery. As a general rule, hearing loss due to gunfire is not modeled in Ops and Tactics, but wearing hearing protection can protect against unexpected loud noises.

Basic Hearing Protection Encompasses foam plugs, wax balls, and fingers stuck in ears. When worn, they grant a +2 bonus to all Saving Throws against being deafened or stunned from loud noises.

Passive Hearing Protection Encompasses large sound dampening earmuffs, that completely seal all sound out. When worn, the wearer will automatically succeed against all Saving Throws against being deafened or stunned from loud noises, but take a -15 penalty to all Perception checks involving sound.

Active Hearing Protection Encompasses thin electronic active sound dampening earmuffs, that completely seal all sound out when it hears loud noises, but otherwise allows for the wearer to hear as normal through microphones and speakers in the earmuffs. When worn, the wearer will automatically succeed against all Saving Throws against being deafened or stunned from loud noises, and the user can hear as normal.

Reference Book Reference books are books written to aid professionals by giving them access to useful knowledge. Reference books can be purchased for any single Knowledge skill, granting a +2 to that specific Knowledge skill, and can be used 6 times by a single character before they have used all of the information in the book, making them worthless.

Lock A lock is a mechanical device used to secure doors, gates, lids, or bags from being accessed by people who do not have access. All locks come with a set of two keys; More can be purchased by the person buying the lock for 1 WP for 4 additional keys. Locks can also be purchased in both mechanical style, and electronic style. Mechanical style uses metal keys to unlock the lock, while electronic style uses electronic key fobs to unlock the lock. Locks generally fail open; defeating the lock using picks means the mechanism opens, allowing unlimited attempts to pick them. Locks can be purchased that instead Fail Closed, where failure to pick the lock properly causes it to jam closed and will not open even with the key, called a lockout. Purchasing a lock that Fails Closed cost twice as much as a normal lock. Below are some of the lock types and their security ratings.

Cheap Lock Cheap locks include briefcase locks, combination locks, and weak padlocks. When these devices fail closed, they can be triggered four times before a lockout. 0 Hardness, 1 HP, Break [TN10], Disable Device [TN20].

Average Lock Average locks include home deadbolt locks and standard padlocks. When these devices fail closed, they can be triggered three times before a lockout. 3 Hardness, 5 HP, Break [TN15], Disable Device [TN25].

High Quality Lock High quality locks include business deadbolt locks, high quality padlocks, and encrypted locks. When these devices fail closed, they can be triggered twice before a lockout. 5 Hardness, 10 HP, Break [TN20], Disable Device [TN30].

High Security Lock High security locks include hardened padlocks with security pins and other anti tampering measures. When these devices fail closed, they usually can be triggered only once before a lockout. 10 Hardness, 120 HP, Break [TN35], Disable Device [TN35].

Ultra-High Security Lock Ultra-high security locks include security hardened padlocks with multiple types of anti tampering measures. When these devices fail closed, they can be triggered only once before a lockout. 20 Hardness, 150 HP, Break [TN45], Disable Device [TN50].

Object	Sz	Wt	Cost	Restr
Sleeping Bag	M	4.0	2	None
Tent, 2-person dome	M	4.0	2	None
Tent, 4-person dome	M	7.0	4	None
Tent, 8-person dome	L	10.0	8	None
Lighter	D	0.1	1	None
Matches	F	0.1	1	None
Battering Ram	M	17.6	13	None
Band-It	S	0.2	30	R
Spotting Scope	M	1.5	25	None
Flare Gun	S	0.6	2	None
Hearing Protection, Basic(500)	D	0.1	1	None
Hearing Protection, Passive	T	0.5	1	None
Hearing Protection, Active	T	0.9	3	None
Reference Book	S	0.5	1	None
Lock, Cheap	T	0.9	1	None
Lock, Average	T	0.9	3	None
Lock, High Quality	T	0.9	5	None
Lock, High Security	T	0.9	12	None
Lock, Ultra-High Security	T	0.9	25	None

Table 101: Equipment, Survival, Security, & Professional Gear(Cont.)

Food, Drink, and Recreational Equipment

Food and drink range from fine wine with a nice Italian meal to powdered orange drink with an MRE. The food listed here is more representative of what a character would encounter out in the field. All food provides Nutritional Value (NV). A character must consume at least 8 NV worth of food every day to sustain themselves.

Starvation and Thirst in Games

Generally, a GM can assume that their players are eating and drinking normally, and do not have to bother with recording food consumption if they are within any kind of civilization that has some kind of established way to receive sustenance. This can range from fast food restaurants all the way to a place to purchase ingredients and make home cooked meals. GMs should only worry about Nutritional Values, starvation, and thirst if the players do not have a readily available way to continuously consume meals. Also, it is assumed that character are spending some of their non-received salaries on food, and do not have to spend any of their given incomes on food, unless they otherwise want to purchase something specific.

MRE A MRE (Meal, Ready to Eat) is a self contained individual field ration issued by militaries to feed their soldiers while away from organized food facilities. They are also popular with survivalists and hikers for their compact size and filling nature. MREs come in various versions, suitable for carnivores, omnivores, and herbivores.

Military, Single Meal The Single Meal Military MRE has enough food to feed a single character 8 NV, even if they don't taste all that great.

Military, Multi Meal The Multi Meal Military MRE has enough food to feed a single character 24 NV, or to feed 3 characters 8 NV each, even if they don't taste all that great.

Civilian The Civilian MRE is more focused on taste and loses calories, feeding a character 5 NV. The price listed is for a pack of 3 MREs.

Trail Rations A trail ration is a mix of high calorie content foods, usually containing dried fruit and nuts. The price listed is for a box of 12. Trail rations will feed a character 1 NV.

Food Bars A food bar is a solid baked bar, consumed by people on the go as meal replacements. The price listed is for a box of 5. A food bar will feed a character 2 NV.

Snack Foods Snack foods encompass a multitude of foods you'd expect to find in a corner store or gas station: Chips, crisps, crackers, biscuits, cookies, cakes, pastries, snack mixes and various miscellaneous candies. A pack of snack food will feed a character for anywhere from 1 NV to 3 NV, depending on what kind of snack food they find. The price listed is for 10 packs. It is recommended that a GM roll 1d3 to determine the NV of the pack of snack food.

Candy Bars A candy bar is a bar, usually coated in chocolate, that contains a variety of ingredients, such as wafers, cookies, caramel, or toffee. They are poor in nutrients, but taste very good. The price listed is for a box of 15. A candy bar will feed a character 1 NV.

Dried Sausages These are sausages that don't require refrigeration, usually made of chopped pork and spices. The price listed is for 1 lb of sausage and 0.2 lb of sausage will feed a character 2 NV.

Pouch Bread This is bread in a sealed plastic pouch, capable of keeping without refrigeration for a long time, while maintaining its freshness. The price listed is for a 4 pack of pouch bread. Each pouch will feed a character 3 NV.

Hard Cheese Aged cheddar, aged gouda, and parmigiano reggiano are some of the most common cheeses kept and eaten due to their long keep time without refrigeration. The price listed is for 2 lbs of cheese, and 0.2 lb of cheese will feed a character 3 NV.

Dried Grains These are a multitude of various grains, such as rice, oats, barley, ground corn, millet, buckwheat, and quinoa, that can be boiled with water and eaten with a variety of additions. The price listed is for 20 lbs, and 0.5 lb will feed a character 3 NV.

Jerky Jerky is lean meat that has been trimmed of fat, cut into strips, and then dried to prevent spoilage. Nearly any muscle meat can be made into jerky and is often carried by outdoorsmen, hikers, and campers as a source of low fat, high protein food. The packaging listed is for 6 bags. A single bag will feed a character 3 NV.

Dried Noodles These are freeze dried instant noodles that come in a pack. They can be eaten raw, though somewhat unpalatable when eaten this way, or they can be boiled with water, and the flavor package added for a simple, decently tasting meal, especially when coupled with dried vegetables. Due to their low cost, they can sustain someone for very low price, though they also lack in nutritional value. The price listed is for 40 packs. A single pack of noodles will feed a character 2 NV.

Dried Produce These are freeze dried vegetables and fruits that have had moisture removed from them to increase their dry storage life. They can be re-hydrated with water and consumed, or used as an ingredient. The price listed is for 6 lbs of mixed dried produce. 1 lb of re-hydrated produce will feed a character for 2 NV.

Fresh Produce Fresh produce include fresh fruits, vegetables, and leafy greens. The price listed is for 5 lbs of various produce, and 1 lb of fresh produce will feed a character for 4 NV.

Fresh Meat Fresh meat includes freshly slaughtered meats of various animals, as well as frozen meat. The price listed is for 4 lbs of meat, and 1 lb of cooked fresh meat will feed a character for 4 NV.

Preserved Meat Preserved meat includes meat that has been cured or smoked, and stored in a cool dry place. The price listed is for 2 lb of meat, and 1 lb of preserved meat will feed a character for 5 NV.

Canned Food This food encompasses both manufactured canning, where the food product is placed into a steel can and capped, or home canning method where the food is preserved and placed into a glass jar. Canned food contents can vary greatly, anything from canned vegetables or meats to complete meals in a jar. Canned food will feed a character for anywhere from 1 NV to 8 NV, depending on the contents of the can. The price listed is for 10 cans. It is recommended that a GM roll 1d8 to determine the NV of the can.

Water Purification Tablets These tablets are chemical tablets that turn even the most suspicious of water sources into clean, drinkable water. One tablet purifies 24 oz/3 units of water. The price listed is for a bottle of 20 tablets.

Bottled Water Water is the transparent, tasteless, odorless, and nearly colorless chemical substance that is required for life to survive. This water is in 16 oz/2 units plastic bottles. The price listed is for 120 bottles of water.

Bottled Juices These are various fruit juices, usually from concentrate, in plastic bottles. The juice are in 16 oz/2 units plastic bottles. The price listed is for 12 bottles of juice.

Canned Juices These are various fruit juices in metal cans. The juice are in 32 oz/4 units cans. The price listed is for 2 cases of 6 cans of juice per case.

Powdered Drinks Including both hot drinks like powdered cocoa and instant coffee, and cold drinks such as carbohydrate drinks and sports drinks. The price listed is for 100 packets.

Canned Soda Canned soda is a 12 oz aluminum can. These serve as tasty drinks on a cool day, or as ammunition for the X-Products Can-Cannon. The price listed is for 48 cans.

Alcoholic Drinks Alcoholic drinks come in a wide variety of flavors and types. When a character drinks, they must make a Fortitude Saving Throw [TN10 + number of servings they have had at a time], or become inebriated.

> **Beer** Beer is the world's most widely consumed and probably oldest alcoholic beverage; it is the third most popular drink overall, after water and tea. It is produced by the brewing and fermentation of sugars, typically derived from malted cereal grains, particularly barley and wheat. The price for beer is for a pack of 12. Each beer is a serving.
>
> **Wine** Wine is an alcoholic beverage made of fermented fruit juice, usually from grapes. The price listed is for a single bottle, which contains about 6 servings.
>
> **Brandy** Brandy is a spirit produced by distilling wine, typically taken as an after-dinner drink. The price listed is for a single bottle, which contains about 30 servings.
>
> **Gin** Gin is a spirit which derives its predominant flavor from juniper berries, used in drinks such as martinis, and gin and tonics. The price listed is for a single bottle, which contains about 30 servings.
>
> **Rum** Rum is a distilled spirit made from sugarcane by-products such as molasses, or directly from sugarcane juice, by a process of fermentation and distillation. It is used in drinks such as rum punch, mojitos, and pina coladas. The price listed is for a single bottle, which contains about 35 servings.
>
> **Tequila** Tequila is a spirit made from the blue agave plant. The price listed is for a single bottle, which contains about 20 servings.
>
> **Vodka** Vodka is a distilled beverage composed primarily of water and ethanol with traces of impurities and flavorings. Vodka is made by distillation of fermented substances such as grains, potatoes, or sometimes fruits. The price listed is for a single bottle, which contains about 25 servings.
>
> **Whiskey** Whiskey is a type of distilled alcoholic beverage made from fermented grain mash. Different grains are used for different varieties, including barley, malted barley, rye, malted rye, wheat, and maize (corn). The price listed is for a single bottle, which contains about 15 servings.
>
> **Liqueur** Liqueur is a type of distilled alcoholic beverage that is flavored with a variety of flavors, and usually has some kind of sugar or sweetener added. It is often used for mixed drinks, but can be consumed by itself. Common liqueur examples include triple sec, schnapps, campari, chocolate liqueur, and amaretto. The price listed is for a single bottle, which contains about 20 servings.

Cigarettes and Cigars A cigarette is a small roll of finely cut tobacco leaves wrapped in a cylinder of thin paper for smoking. A cigar is a tightly-rolled bundle of dried and fermented tobacco that is ignited so that its smoke may be drawn into the mouth. Smoking a pack of cigarettes or a single cigar causes 1 XHP damage per pack smoked. If a character loses their last non-lethal hit point due to smoking, they are nauseated for two hours and gain that hit point back after those two hours. The price listed is for a box of 20 cigars, or a carton of cigarettes, which contains 10 packs of 20 cigarettes each.

Electronic Cigarettes An electronic cigarette, also known as an e-cig, is a battery powered device that simulates smoking. It delivers nicotine into the lungs via a nicotine, propylene glycol, and flavoring mixture, designed to look like, but be much healthier than cigarettes, as instead of smoke, it produces water vapor as its byproduct. Electronic cigarettes come in a massive array of flavors, from regular tobacco flavor to things such as mint, key lime pie, and even cinnamon roll. They take on a variety of appearances as well, from a thin cigarette like look, to a customizable tank and battery. The price listed is for a full kit that includes one tank, one battery with charging apparatus, and two flavors.

Object	Sz	Wt	Cost	Restr
MRE, Civilian (3)	S	1.2	1	None
MRE, Multi Meal Military	S	3.5	2	None
MRE, Single Meal Military (2)	S	2.0	1	None
Trail Rations (12)	S	2.4	1	None
Food Bars (5)	S	0.5	1	None
Snack Foods (10)	S	1.0	1	None
Candy Bars (15)	S	1.5	1	None
Dried Sausages	S	1.0	1	None
Pouch Bread (4)	S	1.5	1	None
Hard Cheese	S	2.0	1	None
Dried Grains	S	20.0	1	None
Jerky(6)	S	3.0	1	None
Dried Noodles (40)	S	8.0	1	None
Dried Produce	S	6.0	1	None
Fresh Produce	S	5.0	1	None
Fresh Meat	S	4.0	1	None
Preserved Meat	S	2.0	1	None
Canned Food (10)	S	10.0	1	None
Bottled Water(120)	T	132.0	1	None
Bottled Juice(12)	T	13.2	1	None
Canned Juice(12)	T	16.0	1	None
Powdered Drinks(100)	D	10.0	1	None
Canned Soda (48)	T	38.4	1	None
Beer(12)	S	9.0	1	None
Wine	S	1.5	2	None
Brandy	S	1.5	4	None
Gin	S	1.5	2	None
Rum	S	2.0	2	None
Tequila	S	2.0	2	None
Vodka	S	2.0	2	None
Whiskey	S	2.0	2	None
Liqueur	S	2.0	1	None
Cigarettes	F	0.1	2	None
Cigars	D	0.2	3	None
E-cig Kit	S	0.8	1	None
E-cig, Additional Flavors (4)	T	0.1	1	None

Table 102: Equipment, Food & Drink

Pharmaceutical Drugs, Medical Supplies and Poisons

Pharmaceutical drugs, also referred to as medicine, can be loosely defined as any chemical substance intended for use in the medical diagnosis, cure, treatment, or prevention of disease. When using medicine, only the highest modifier applies.

Antibacterials and Antivirals An antibacterial is a compound or substance that kills or slows down the growth of bacteria. Antiviral drugs are a class of medication used specifically for treating viral infections. Both are used to combat against diseases, and grant a bonus to Fortitude Saving Throws toward disease. The cost of the drug is dependent on the actual Fortitude Saving Throw of the disease. The price listed is for three doses. Antibacterials and Antivirals can also be used in conjunction with the Treat Injury skill when Restoring Hit Points.When using the Restore Hit Points action from the Treat Injury Skill, Antibacterials and Antivirals grants a bonus to recovered HP equal to 3 times the bonus of the selected medicine.

Object	Sz	Wt	Cost	Restr
+1 bonus (3)	F	0.1	2	None
+2 bonus(3)	F	0.1	4	None
+3 bonus(3)	F	0.1	6	None
+4 bonus(3)	F	0.1	8	None
+5 bonus(3)	F	0.1	10	None
+6 bonus(3)	F	0.1	12	None
+7 bonus(3)	F	0.1	14	None

Table 103: Equipment, Pharmaceuticals, Antibacterial/Antiviral

Analgesics/Painkillers These medicines allow a character to ignore pain, and allow them to continue fighting, but only for a limited time. When the effects wear off, the healing affect of the painkillers go with it. Painkillers can only be given to a character with at least 1 CHP. A player who has 0 or less CHP has suffered serious injuries and must receive medical attention and can not use painkillers. A character can not gain more XHP than their maximum. The price listed is for three doses, and each dose lasts for 1d3 hours. Taking painkiller while still under the effect allows the character to reroll the duration and the effect, replacing the prior effect and duration. The dosage can come in the form of digestible pills or an injectable liquid.

Object	Sz	Wt	Cost	Restr
Restore 1d4 XHP (3)	F	0.1	1	None
Restore 2d4 XHP (3)	F	0.1	2	None
Restore 3d4 XHP (3)	F	0.1	3	L
Restore 4d4 XHP (3)	F	0.1	4	L
Restore 5d4 XHP (3)	F	0.1	5	R

Table 104: Equipment, Pharmaceuticals, Painkillers

Hemostat These medicines promote the clotting of blood. They reduce the bleed damage based on the level of the hemostat. The price listed is for two doses.

Object	Sz	Wt	Cost	Restr
Remove 3 bleed damage(2)	F	0.1	1	None
Remove 5 bleed damage(2)	F	0.1	3	None
Remove 8 bleed damage(2)	F	0.1	7	None
Remove 13 bleed damage(2)	F	0.1	11	None
Remove All bleed damage(2)	F	0.1	20	None

Table 105: Equipment, Pharmaceuticals, Hemostat

Antiseptics Antiseptics are substances that are applied to destroy microorganisms that are living on objects. These medicines give a bonus to all Treat Injury checks when used, but the user must have at least 1 rank in the Treat Injury skill. The amount listed is for five doses.

Weak Antiseptic These include distilled spirits, as well as watered down isopropyl alcohol. They grant a +1 to Treat Injury.

Standard Antiseptics These include grain alcohol and proper strength isopropyl alcohol. They grant a +3 to Treat Injury.

Strong Antiseptics This includes iodine and hydrogen peroxide. They grant a +5 to Treat Injury.

Concentrated Antiseptics This includes polyhexanide. They grant a +8 to Treat Injury.

Object	Sz.	Wt.	Cost	Restr.
Weak(5)	F	0.2	1	None
Standard(5)	F	0.2	4	None
Strong(5)	F	0.2	7	None
Concentrated(5)	F	0.2	13	None

Table 106: Equipment, Pharmaceuticals, Antiseptics

Antidote Antidote is a substance used to counteract poisons. Antidote allows the character to heal 1 additional ability score point per day, per dose, when recovering ability scores from poison. The cost is for two doses. The dosage comes in the form of digestible pills. Antidote is only able to counter liquid and solid poisons.

Object	Sz	Wt	Cost	Restr
Antidote(2)	F	0.2	1	None

Table 107: Equipment, Pharmaceuticals, Antidote

Cold Pack A cold pack is a strong plastic bag filled with water and a packet of ammonium nitrate that is suspended within it. When broken, it becomes very cold. It heals 2d3 damage per 10 minutes and can only be used to restore XHP that was lost by bludgeoning, fire, plasma, or non-lethal damage. Cold Packs can also be used in conjunction with the Treat Injury skill when Stabilizing a Dying Character. When using the Stabilize Dying Character action from the Treat Injury Skill, a Cold Pack heals the character 1d3 HP. The price listed is for eight packs, and the packs last for 1 hour.

Spray-on Bandage Spray-on bandage is antiseptic and bandage all in one convenient little bottle used for small nicks and scratches. It heals 1d3 damage per use and can only be used to restore XHP that was lost by Slashing or Piercing damage. The price listed is for four, 20 dose bottles.

Tourniquet A tourniquet is a constricting device used to control bleeding on appendages. Tourniquets allow a character to ignore all penalties from extremity damage for 1d3 minutes, and reduces all bleed dice by 3 on that appendage for 5d12 minutes. Tourniquets can only be applied on arms or legs.

Quick Splint A quick splint is a constricting device used to give structure to damaged limbs. Quick splints halve the penalties from extremity damage for 2d3 days. Quick splints can be applied to hands, feet, arms and legs.

Field Dressing Field dressing are bandages used to control bleeding in general. Field dressings can be used to stop 1 bleed damage per bandage. Field dressings can also be used in conjunction with the Treat Injury skill when stopping bleeding. When used in this manner, they stop an additional 3 bleed damage per field dressing used, up to a maximum of 4 field dressing. Failing the Treat Injury check still stops 1 bleed damage per bandage.

Synthetic Blood Pack Synthetic blood packs are shelf stable, sterile universal blood packs that are created in a lab, and used to aid in recovery. When using the Long Term Care action from the Treat Injury skill, a blood pack grants an additional 15 HP per day in healing. When using the Restore Hit Points action from the Treat Injury Skill, a blood pack grants an additional 3d4 HP of healing. When using the Surgery action from the Treat Injury skill, a blood pack reduces the time to recovery from fatigue, and the time required to complete a surgery, by half. A blood pack contains 4 units of synthetic blood. A character must have blood to benefit from synthetic blood packs.

Object	Sz	Wt	Cost	Restr
Cold Pack(8)	T	0.4	1	None
Spray-on Bandage(4)	T	0.2	1	None
Tourniquet	T	0.3	2	None
Quick Splint	T	0.4	1	None
Field Dressing(4)	T	0.1	1	None
Synthetic Blood Pack	T	0.3	2	None

Table 108: Equipment, Pharmaceutical Equipment

Poisons Poisons are chemical substances that can cause disturbances to organisms, usually by chemical reaction or other activity on the molecular scale, when a sufficient quantity is absorbed by an organism. While nearly any substance ingested, injected, or inhaled into the body technically counts as a poison, the poisons listed here are specifically listed for their effects. The price listed is for 5 doses in a synthesized solid, liquid poison stored in a bottle, or a gas stored in a pressurized cylinder.

Object	Sz	Wt	Cost	Restr
Arsenic	S	1.0	8	R
Atropine (2)	S	1.0	3	R
Blue Vitriol (2)	S	1.0	3	R
Chloral Hydrate	S	1.0	15	R
Cyanide	S	1.0	35	M&P
Cyanogen	S	1.0	12	M&P
DDT	S	1.0	13	I
Lead Arsenate (Gas)	S	1.0	2	R
Lead Arsenate (Solid)	S	1.0	2	R
Mustard Gas	S	1.0	3	M&P
Paris Green (Gas)	S	1.0	8	None
Paris Green (Solid)	S	1.0	8	None
Sarin	S	1.0	35	I
Strychnine	S	1.0	12	R
Tear Gas	S	1.0	8	R
Tranquilizer	S	1.0	4	R
VX	S	1.0	300	I

Table 109: Equipment, Poisons

Narcotics

Cannabis A genus of flowering plants that has long been used for fiber (hemp), seed and seed oils, medicinal purposes, and as a recreational drug. A character may smoke one dose of cannabis and roll a set of dice dependent on the potency. This roll is both the penalty to Will Saving Throws and their AGI modifier and a bonus to their XHP. The effect lasts for 5d12 minutes. Should the AGI penalty exceed the character's DEX score, it is treated as 0 until the drug's effect wears off. There are 50 doses in 0.1 lbs of cannabis. Any amount less than 50 doses is considered weightless.

Potency	Dice Rolled
Weak	1d2
Normal	1d3
Strong	2d3
Concentrated	2d3+1

Table 110: Cannabis Potency

Coca Leaf The leafy part of the coca plant, chewed to reduce tiredness and encourage recuperation. A character may chew a leaf for up to 1 hour. If a character is exhausted, they are now fatigued. If a character is fatigued, it takes half the amount of time to become well rested. Sold in packs of 16 leaves.

Cocaine Cocaine is the processed version of the coca plant, used as a strong stimulant. It is primarily used as a recreational drug. A character may ingest, inject, or inhale one dose of cocaine (0.01 lb) to gain 5 additional Combat Points every round for 1 minute. The character may ingest, inject, or inhale subsequent doses to lengthen the time this bonus lasts by 1 minute, but it does not grant any additional Combat Points. After each dose is ingested, injected, or inhaled, a character immediately makes a Fortitude Saving Throw [TN25]. If a character fails this Saving Throw, they take CHP damage equal to the Combat Point bonus they received. The TN increases by 5 for each dose of Cocaine taken within 6 weeks of the first dose. There are 8 doses in 0.1 lbs of cocaine. Any amount less than 8 doses is considered weightless.

Adderall A pharmaceutical pill marketed as a treatment for ADHD, ADD, and other similar disorders. A character can consume a single pill, which reduces Craft checks of 24 hours in length or more by 1d4 hours, and Craft checks of 1 week in length or more by 1d3 days. This effect lasts for one week. Adderall is packaged in a small bottle containing 10 pills.

MDMA An empathogenic drug that causes euphoria, a diminished sense of anxiety, and mild psychedelia. A character can consume a single pill which grants a +2 bonus to all Reflex and Will Saving Throws. This bonus lasts for 30 minutes. After the effect wears off the character is considered Exhausted. A character can consume at least 4 units of water to halve the time it takes to recover from their exhaustion. MDMA is packaged in a small bottle containing 10 pills.

Opioids These medicines allow a character to ignore pain, and allow them to continue fighting, but only for a limited time. These are much stronger versions of the over the counter painkillers and as such require proper documentation to possess. When the effects wear off, the healing effect of the opioid goes with it. Opioids can be given to a character with at least 1 CHP. Opioids will restore both CHP and XHP, but will always restore CHP before XHP. A character can not gain more CHP or XHP than their maximum. The price listed is for one dose and each dose lasts for 1d3 hours. After taking a single dose, the character takes 1 CON damage that heals normally.

Hallucinogens These vary in presentation, type, and duration, but they all do the same thing—make the character hallucinate. When a character takes a single dose of a hallucinogen, they take 3d3 WIS damage. This effect lasts 2d2 hours and the damage lasts as long as the effect.

Object	Sz	Wt	Cost	Restr
Cannabis, Weak	T	–	1	I
Cannabis, Normal	T	–	2	I
Cannabis, Strong	T	–	4	I
Cannabis, Concentrated	T	–	8	I
Coca Leaf (16)	T	0.1	2	R
Cocaine	T	–	80	I
Adderall (10)	D	0.1	4	L
MDMA	D	0.1	2	I
Opioid, Restore 2d10+1 HP	F	0.1	5	L
Opioid, Restore 3d10+1 HP	F	0.1	10	R
Opioid, Restore 4d10+1 HP	F	0.1	15	I
Hallucinogens	F	0.2	1d6	I

Table 111: Equipment, Narcotics

Armor

Armor comes in three different types:

Impromptu armor includes items that provide protection even though they were not designed for that purpose, such as leather biker's jackets and football pads.

Concealable armor is modern body armor designed to fit underneath regular clothing. It can be worn for extended periods of time without fatiguing the wearer. Concealable armor can also be worn under Impromptu or Tactical armor.

Tactical armor is modern body armor that fits over clothing and can't be easily concealed. Its weight and bulk make it impractical to wear all the time and is generally only donned when a specific dangerous confrontation is likely. Because it is worn over clothing in tactical situations, tactical armor often has pockets, clips, and MOLLE attachment points for carrying weapons, grenades, ammunition, flashlights, first aid kits, and other items.

- **Equipment Bonus** The equipment bonus is the bonus to DEF a character gets if they are proficient in the armor, and its AP has not been depleted. The Equipment bonus applies to the entire character, not just areas it protects.
- **Maximum AGI Bonus** The maximum AGI bonus you can apply toward your defense, when wearing the armor.
- **Armor Penalty** This penalty applies to the following skills if the character isn't proficient in the worn armor: Acrobatics, Athletics, Craft (All), Demolitions, Disable Device, Drive, Perform, Pilot, Ride, and Stealth. If a character is proficient in the armor, the penalty only applies to Athletics, Acrobatics, and Stealth.
- **CP Loss** How much the armor slows a character down when worn. The character has to spend this amount of Combat Points from their Combat Point pool before they can move.
- **Damage Reduction** This represents how much damage the armor negates, and what type of damage is reduced. Any slashing, piercing, ballistic, or concussive damage that exceeds all the damage reduction of all worn armors is considered bludgeoning damage. If a weapon does multiple types of damage, and the armor does not protect against all damages listed, that damage is not stopped by the armor.
  - **Sl** Slashing | **Pi** Piercing | **Bl** Bludgeoning | **Ba** Ballistic
  - **F** Fire | **C** Concussion | **Bp** Ballistic Piercing
- **AP** Armor points are a representation of how much damage armor can take. When armor protects a character from damage using its damage reduction, it subtracts the damage done from its AP score. Armor points are only subtracted to applicable damage, but they subtract all applicable damages if an armor stops multiple types of damages. Armor can be repaired at 1 WP per armor point. Armor only protects against certain types of damage. If a character is attacked and the character's armor does not cover the certain type of damage, the Damage Reduction for the armor does not apply, and the character take the full damage to their hit points. When an armor has run out of AP, it also stops providing an Equipment Bonus to DEF.
- **Weight** The weight of the armor. Unlike clothing, Armor is counted as equipment, and goes against your carrying capacity.

Light Armor

Light Football Pads This suit of armor is worn by professional and amateur players alike, and includes shoulder, leg, and arm pads. This type is normally worn by running backs and quarterbacks, sacrificing extra armor for range of motion.

Special Notes This armor protects the arms and legs of the wearer, providing DR and Defense to all listed areas.

Motorcycle Jacket This is the bare minimum for the modern motorcyclist and consists of leather gloves and a leather motorcycle jacket. It grants the wearer a +1 to Fortitude Saving Throws made to resist the effects of cold weather. Motorcycle Jackets have two pockets than can hold 1.5 lbs of equipment that is Tiny sized or smaller each.

Special Notes This armor protects the arms and hands of the wearer, providing DR and Defense to all listed areas.

Motorcycle Cut This is a thick leather vest worn by motorcyclists, a particular common sight on motorcycle club members. They have hidden pockets that contain a holster-sheath that will hold one Small or smaller sized weapon, and a pouch that can hold 2 magazines or speedloaders. Any objects in these pockets gain a +1 to Stealth checks to hide these objects.

Light Undercover Shirt Designed for deep undercover work where the user must not appear to be armed or armored, this garment consist of a t-shirt with a band of Kevlar sewn in around the torso.

Flak Vest A flak vest is a light vest worn by aircraft personnel to protect against flak cannons, but can also be used to protect against grenades.

Low-Profile Armor This set of body armor is visually indistinguishable from a common vest, sweater, pullover, suit coat, or jacket. Often used by employees of corporations, particularly those employed as security or bodyguard personnel.

Undercover Vest Covering a larger area of the torso, this vest provides better protection than the light undercover shirt and low-profile armor but is also more easily noticed. It is best used when the armor should remain unseen but the wearer doesn't expect to face much scrutiny.

Special Notes Grants a +2 bonus to Stealth checks when hiding the armor.

Turnout Coat This fireman's coat is made of a thick, flame resistant and waterproof material.

Special Notes This armor protects the arms of the wearer, providing DR and Defense to all listed areas. This clothing cannot catch fire.

Corrections Vest This armor is designed for use in prisons, where firearms are less of a threat than improvised melee weapons.

MOLLE Vest This tactical gear is covered in MOLLE, which allows different accessories to be mounted according to the user's specifications. the MOLLE vest is also printed in camouflage patterns: woodland, desert, winter, urban (gray patterned), and black are available. When worn in an appropriate setting, and is all matching, it grants a +2 bonus on Stealth checks. This armor has 12 MOLLE slots, but they can be removed at time of purchase for no cost.

Special Notes This Armor can accept a single set of Armor Plates.

Plastron Fencers wear this quilted canvas armor, which protects the torso, arms, and groin against parries, thrust, and swipes from foils, epees, and sabres.

Special Notes This armor protects the arms of the wearer, providing DR and Defense to all listed areas.

Field Vest This vest is an updated version of the flak vest, increasing it's protection against shrapnel and providing some light ballistic protection at the cost of weight. This armor was created by Blackghost

Special Notes This Armor can accept a single set of Armor Plates.

Medium Armor

Concealable Vest This standard Kevlar vest is worn by most law enforcement officers under their uniform shirts.

Special Notes Grants a +4 bonus to Stealth checks when hiding the armor.

Concealable Fight Vest This is a variation on the standard Kevlar vest is worn by most law enforcement officers under their uniform shirts, sacrificing some ballistic damage protection to protect against swords and arrows.

Special Notes Grants a +4 bonus to Stealth checks when hiding the armor.

Motorcycle Armor This suit of modern armor is worn by motorcyclist to protect from falls. It includes gloves and a motorcycle jacket. It grants the wearer a +1 to Fortitude Saving Throws made to resist the effects of cold weather.

Special Notes This armor protects the arms and hands of the wearer, providing DR and Defense to all listed areas.

Light Duty Vest A lightweight tactical vest with Kevlar designed for extended use by riot police and forces on alert for potential attack. This tactical gear is covered in MOLLE, which allows different accessories to be mounted according to the user's specifications. This armor has 5 MOLLE slots, but they can be removed at time of purchase for no cost.

Riot Vest This vest is a variation on the light duty vest, designed for more melee combat confrontations over ballistic threats. This tactical gear is covered in MOLLE, which allows different accessories to be mounted on according to the user's specifications. This armor has 5 MOLLE slots, but they can be removed at time of purchase for no cost.

Special Notes This armor protects the arms, hands, legs, and feet of the wearer, providing DR to all listed areas.

Tactical Vest The standard body armor for police tactical units, this vest provides full torso protection in the toughest flexible protective materials available. This tactical gear is covered in MOLLE, which allows different accessories to be mounted according to the user's specifications. This armor has 6 MOLLE slots, but they can be removed at time of purchase for no cost.

Special Notes This Armor can accept a single set of Armor Plates.

Heavy Football Pads This suit of armor is worn by professional and amateur players alike, and includes shoulder, leg, and arm pads. This type is normally worn by linebackers and "heavy hitter" positions, sacrificing movement for extra padding and armor.

Special Notes This armor protects the arms, legs, feet and hands of the wearer, providing DR and Defense to all listed areas.

Heavy Armor

Red Man Suit This heavily padded suit is used primarily for unarmed and blunt-weapon melee combat training, allowing opponents to throw full-force blows without injuring their training partners.

Motorcycle Suit This suit of modern armor is worn by motorcyclist to protect from falls. It includes gloves, pants, a spine protector, and an armored jacket. It grants the wearer a +1 to Fortitude Saving Throws made to resist the effects of cold weather.

Special Notes This armor protects the arms, hands, leg, and feet of the wearer, providing DR and Defense to all listed areas.

Special Response Vest Built like the tactical vest, but incorporating groin and neck protection as well as trauma plates over the chest and back. This tactical gear is covered in MOLLE, which allows different accessories to be mounted according to the user's specifications. This armor has 7 MOLLE slots, but they can be removed at time of purchase for no cost.

Special Notes This Armor can accept a single set of Armor Plates.

Forced Entry Unit This armor consist of heavy torso jacket, with trauma plate holders that cover the chest and back, neck and groin guards, and arm protection. This tactical gear is covered in MOLLE, which allows different accessories to be mounted on to the user's specifications. This armor has 8 MOLLE slots, but they can be removed at time of purchase for no cost.

Special Notes This armor protects the arms and hands of the wearer, providing DR and Defense to all listed areas. This Armor can accept a single set of Armor Plates.

Crash Rescue Suit This reflective, full-body suit is exclusive to fire departments expecting to deal with high radiant heat or savage burning liquids. It is rated to protect against sustained exposure to temperatures of 1,500°F and short exposure to 2,000°F, and includes a hood with a reflective faceplate, mittens, and boots. A crash rescue suit contains a 30 minute air supply.

Special Notes This armor protects the head, arms, legs, feet, and hands of the wearer, providing DR and Defense to all listed areas. This clothing cannot catch fire.

EOD Suit This armor consists of a complete anti-explosive armor setup, used by bomb disposal technicians to diffuse live bombs. It includes heavy ballistic armor, as well as a see-through ballistic visor and helmet.

Special Notes This armor protects the head, arms, legs, feet, and hands of the wearer, providing DR and Defense to all listed areas.

	Type	Equipment Bonus	Max AGI Bonus	Armor Penalty	CP Loss	Damage Reduction	AP	Wt	Cost
MOLLE Vest	Lt.T	+0	+6	+0	0	0/None	—	3.0	8
Motorcycle Jacket	Lt.I	+0	+6	+0	0	3/Sl	32	2.0	6
Motorcycle Cut	Lt.I	+0	+6	+0	0	3/Sl	16	1.3	5
Flak Vest	Lt.T	+0	+5	+0	0	3/Sl	21	2.0	3
Light Football Pads	Lt.I	+1	+6	+0	0	3/Bl	15	4.0	5
Turnout Coat	Lt.I	+1	+5	+0	0	2/F 1/Pi, Sl	10	10.0	10
Light Undercover Shirt	Lt.C	+1	+4	–1	0	4/Ba	8	1.4	13
Undercover Vest	Lt.C	+1	+4	–1	0	10/Ba	30	3.0	16
Low-Profile Armor	Lt.C	+2	+4	–1	0	6/Ba	18	2.0	18
Corrections Vest	Lt.T	+2	+3	–2	1	6/Sl, Pi 5/Bl	80	4.0	17
Plastron	Lt.I	+2	+4	–1	0	5/Sl, Pi	32	3.0	10
Field Vest	Lt.T	+2	+4	–2	1	6/Sl, Pi 2/Ba	30	5.0	18
Motorcycle Armor	Md.I	+2	+5	–1	1	4/Bl, Sl	20	5.0	11
Concealable Vest	Md.C	+2	+3	–1	2	11/Ba 2/Sl	35	4.0	20
Concealable Fight Vest	Md.C	+3	+3	–2	2	7/Sl, PI 4/ Bl 2/Ba	50	4.0	20
Light Duty Vest	Md.T	+3	+2	–3	2	12/Ba, Bl 3/Sl	60	5.0	30
Riot Vest	Md.T	+4	+3	–4	2	12/Bl 8/Sl, Pi 2/Ba	120	7.0	30
Tactical Vest	Md.T	+4	+2	–3	2	13/Ba 4/Sl	65	9.0	32
Heavy Football Pads	Md.I	+1	+4	+0	1	5/Bl	25	8.0	5
Red Man Suit	Hv.T	+3	+1	–5	3	10/Bl	50	12.0	24
Motorcycle Suit	Hv.I	+3	+4	–2	1	7/Bl, Sl	35	8.1	20
Crash Rescue Suit	Hv.T	+4	+2	–4	3	25/F	50	25.0	40
Special Response Vest	Hv.T	+5	+1	–5	3	18/Ba, Bp 8/Pi 6/Sl	108	17.0	45
Forced Entry Unit	Hv.T	+5	+0	–5	4	21/Ba, Bp, Sl 10/Pi	147	22.0	50
EOD Suit	Hv.T	+4	+0	–7	4	40/C, Pi, Sl	50	35.0	95

Table 112: Equipment, Armor

Armor Plates

These are plates that can be placed in armor, either by being built in, or placed in a MOLLE attachment, to increase its effectiveness against bullets and shells. Armor plates cannot be repaired, and must be replaced after they are used up. The price and listing are for a set of plates that protect the center mass area, which includes the back and torso. Only one set of plates may be used at a time.

Trauma Plates These plates are made from kevlar, designed to give additional ballistic protection.

Stab Plates These plates are made from a high density polymer, designed to give protection against stabbing and piercing.

Titanium Plates These plates are made from high grade titanium, and provide decent protection with the added comfort of light weight.

Ceramic Plates These are ballistic ceramic plates, built for a compromise between strength and weight.

Steel Plates These are heavy steel inserts, used for multiple rifle round hits, at the cost of weight.

Plate Type	CP Loss	DR	AP	Wt	Cost
Trauma	0	8/Ba	32	1.8	7
Stab	0	7/Pi 2/Bp	35	1.6	2
Titanium	0	6/Ba, Bp 1/Pi	18	3.0	8
Ceramic	1	18/Ba, Bp 3/Pi	36	4.0	15
Steel	2	9/Ba, Bp 2/Pi	54	5.5	10

Table 113: Equipment, Armor Plates

Helmets

Helmets keep the most important part of most creature's body safe: the head. When calculating the damage for a called shot to the head, use the damage reduction (if any) for the hat or helmet. Mounts can be purchased to mount eyewear or other devices like flashlights to a helmet, at 3 WP.

Motorcycle Helmet These helmets come in various sizes and colors and protect the wearer from wind and small objects when moving at a fast pace, as well as when falling.

Sports Helmet Used in various sporting events to protect the wearer's head.

Plastic Helmet A helmet primarily used to protect against falling debris in construction zones.

Ballistic Combat Helmet The standard helmet usually issued to combat forces in the military that protects against shrapnel and glancing bullets.

Steel Combat Helmet A surplus helmet from wars gone by, having fallen out of favor in light of new lighter and sturdier options. They can be found in thrift stores and army-navy stores alike.

Riot Helmet Used by police forces when containing a disturbance or riot. It has a clear Plexiglas shield on the front that protects against thrown objects and chemical weapons.

Helmet Type	Type	DR	Wt	Cost	AP
Motorcycle	I	6/Bl, Sl	1.9	5	12
Sports	I	4/Bl	2.0	2	15
Plastic	I	3/Bl	1.5	2	18
Combat, Ballistic	T	5/Ba, Bl, Sl	3.0	10	20
Combat, Steel	T	2/Ba, Bl, Sl	3.0	3	25
Riot	T	8/Bl	1.9	3	18

Table 114: Equipment, Armor, Helmets

Armor Upgrades

Armor can be customized to grant additional bonuses toward armor, or increase the armor rating of normal clothing.

Camouflage Patterning This upgrade covers a piece of armor or clothing in camouflage paint or cloth, which gives a +2 to Stealth when worn in the applicable setting.

MOLLE Fitting This upgrade fits armor or clothing with MOLLE slots, which allows different accessories to be mounted according to the user's specifications. Gives 2 MOLLE slots per upgrade. Armor or clothing can have no more than 20 MOLLE slots. This upgrade can also be used to remove all of the MOLLE from an armor. Removing the MOLLE from an armor only requires purchasing the upgrade once.

Hidden Compartment Fitting This upgrade fits armor or clothing with a hidden compartment that gives a +4 to Stealth to hide an object. An object of tiny or smaller size may be hidden in the compartment.

Custom Fitting This upgrade fits the armor to a specific wearer, granting the wearer +1 maximum AGI bonus, a 50% increase in AP, and a +1 equipment bonus to DEF.

Limb Protections This upgrade fits the armor with limb protectors that protect either the arms and hands or the legs and feet from damage. Limb protectors can be installed on any armor that lacks limb protection for that area. The character selects either arm and hand protection, or leg and foot protection with the protectors providing DR and Defense that the original armor grants to all selected areas. Light limbs can be installed on light, medium, and heavy armor, medium limbs can be installed on medium and heavy armor, and heavy limbs can be installed on heavy armor only. Limb protection can only be installed on armor that has Armor Points.

Light Increases the Armor Points by 5, but but increases the armor's weight by 5%.

Medium Increases the Armor Points by 20, but increases the armor's weight by 15%.

Heavy Increases the Armor Points by 40, but increases the armor's weight by 20%.

Armor Upgrade	Cost
Camouflage Patterning	2
MOLLE Fitting	1
Hidden Compartment Fitting	3
Custom Fitting	100%
Limb Protectors, Light	6
Limb Protectors, Medium	14
Limb Protectors, Heavy	31

Table 115: Equipment, Armor Upgrades

Weapons

The weapons covered here are grouped into categories based on their general utility: melee weapons and ranged weapons.

Weapons are classified by size. Medium or smaller sized weapons can be used with one hand. Large or larger sized weapons require two hands to use.

Melee Weapons

Melee weapon damages are classified according to type: bludgeoning (weapons with a blunt striking surface), energy (of a specific type), piercing (weapons with a sharp point), and slashing (weapons with an edged blade). Certain types of armor only protect against particular forms of damage.

Improvised Weapons

Any improvised weapon does the same amount of damage as a real weapon in its class, but unlike real weapons, improvised weapons are not designed to take the amount of stress a real weapon can take. An improvised weapon has a –2 attack penalty and a 50% chance of breaking each combat it is used. When combat starts, the GM secretly rolls a single d% for every improvised weapon. If the roll is equal to or less than 50% then the weapon has the possibility to break during this combat. If a weapon is at risk of breaking it breaks on any natural roll of 12-18 and so long as it hits something; whether it be the intended target, some form of cover or a shield.

Melee Weapons as Thrown Weapons

It's not uncommon for a character to need to use a melee weapon as a thrown weapon. Use the below statistics when using a melee weapon in a thrown role.

- **Spears** Treat as an improvised javelin
- **Hand Axe** Treat as an improvised throwing axe
- **Light Club, Medium Club, and Tool Hammer** Treat as an improvised brick for range and penalties and using the weapon's melee damage as damage.
- **Knives** Treat as an improvised throwing knife. Push daggers and injection knives can not be thrown.

All weapons not listed are not able to be used as thrown weapons.

Simple Melee Weapons

Generally inexpensive and light in weight, simple weapons nevertheless get the job done. Any sentient character can use simple melee weapons without penalty.

Unarmed Strikes This encompasses kicks, punches, elbows, knees, and headbutts. This is not a weapon in the traditional sense, but rather a way for a character to attack without any weapons at all. An unarmed strike's damage is non-lethal. Unarmed strikes are touch attacks, and use touch defense instead of normal defense. Unarmed attacks are considered attacks made with a small weapon. Unarmed strikes are not considered simple weapons for the purpose of feats, and have no upgrade points.

Brass Knuckles These pieces of molded metal fit over the outside of a character's fingers and allow him or her to deal lethal damage with an unarmed strike instead of non-lethal damage. A strike with brass knuckles is otherwise considered an unarmed attack. When used by a character with the Brawl, Improved Brawl, or Street Fighting feat, brass knuckles increase the base damage dealt by an unarmed strike by +2. An improvised version of this weapon is a set of heavy finger rings.

Wrist Wraps These are cloth wrist wraps with padding and a velcro strap that is used to secure them to the wearer, often used for all types of fighting while still allowing use of the hands for other issues, or even use other weapons while wearing them. An unarmed strike with wrist wrap's damage is non-lethal. When used by a character with the Brawl, Improved Brawl, or Street Fighting feat, wrist wraps increase the base damage dealt by an unarmed strike by +1. An improvised version of these are tightly wrapped cloth bandages. Wrist wraps have no upgrade points.

Push Blade/Punch Dagger This blade extends in line with the wielder's arm when held in a clenched fist. Push blades and punch daggers use touch defense instead of normal defense. An improvised version is a corkscrew.

Field Knife A field knife is a larger knife, usually with a thick, single edged hearty blade that is used in the field, for camping. Improvised versions of this weapon include cleavers and kitchen knives. Field knives come with a tactical sheath.

Survival Knife A typical fighting knife and also represents a variety of field weapons like cutting daggers and bayonets. Improvised versions of this weapon include broken bottles and kitchen knives. Survival knives come with a tactical sheath.

Combat Knife A typical fighting knife and also represents a variety of field weapons like stabbing daggers and bayonets. Improvised versions of this weapon include broken bottles and kitchen knives. Combat knives come with a tactical sheath.

Pocket Knife A pocket knife is a knife that is deposited in the pocket, or in a small sheath that is usually worn all day or carried all day. A pocket knife is 3-6" long. Examples are numerous in nature. Improvised versions of this weapon include ice picks, letter openers, straight razors, and screwdrivers. Pocket knives come with a tactical sheath.

Escape Knife An easily hidden blade, commonly stashed in a place where the owner might be able to grab it when tied up. Improvised versions of this weapon include prison shivs, throwing knives, and pieces of broken glass. Escape knives come with a tactical sheath.

Kukri This heavy, curved dagger has its sharp edge on the inside of the curve. Improvised versions of this unique weapon are extremely unlikely. Kukris come with a tactical sheath.

Karambit A Karambit is a curved knife with a blade on both the inner and outer portion of the contact with a loop on the end, that is used to cut, grapple, and flip in a dynamic fashion. Improvised versions of this unique weapon are extremely unlikely. When grappling with a karambit, the weapon automatically deals it's damage for every successful grapple check. Attacking with a karambit cost +1 Combat Point. Karambits can not perform thrust attacks. Karambits come with a tactical sheath.

Injection Knife An injection knife is a knife that has a CO_2 cartridge in the handle. When stabbed into an object, a small button can be pressed (for 1 Combat Points) that will inject freezing cold CO_2 into its target. It has an internal magazine of one and requires a new CO_2 cartridge for every use. Improvised versions of this unique weapon do not exist. Critical Strikes from this weapon only change the initial blade damage and not the Cold damage. Injection knives come with a tactical sheath.

Ballistic Knife

A ballistic knife is a specialized combat knife with a detachable blade that can be expelled from the handle/frame as a projectile by means of a spring-operated mechanism. All ballistic knives come with two blades, and require 4 Combat Points to reload and provokes AoO. When it isn't fired it functions like a survival knife. The damage listed is for when the blade is launched. It is limited to 2 range increments and has a 20' range. Ballistic knives can be embedded.

Light Club A light club is less than 8" long, lighter than 3 pounds, and easily used with one hand. There are countless examples, including such deliberately crafted items as escrime sticks, kubatons and metal batons. Improvised versions of this weapon include chair legs, broken pool cues, tire irons, and small tree branches. Light clubs only take a -2 attack penalty when being used in a non-lethal manner.

Medium Club A medium club is between 8" and 12" long, lighter than 3 pounds, and can be used with one hand. There are countless examples, including such deliberately crafted items as escrime sticks, metal batons, and police clubs. Improvised versions of this weapon include frying pans, pool cues, and small tree branches. Medium clubs only take a -2 attack penalty when being used in a non-lethal manner.

Heavy Club A heavy club is between 12-24" long, weighs between 2-4 pounds, and requires the use of two hands. The classic modern example is the wooden baseball bat. Improvised versions of this weapon include chairs, crowbars, heavy tree branches, and lengths of thick cable. Heavy clubs only take a -2 attack penalty when being used in a non-lethal manner.

Sap This weapon consists of a soft leather sack loaded with lead shot. It is typically brought down on the back of an opponent's head, knocking them out cold. Improvised versions of this weapon include sweat socks stuffed with rolls of quarters or marbles. This weapon does non-lethal damage only.

Tool Hammer A household hammer that can be found in any hardware store in the world. Improvised versions of this weapon include short lengths of pipe, stone statuettes, and tire irons.

Sledgehammer A common rock-breaking implement and is stunningly effective, though slow and cumbersome to use. Improvised versions of this weapon include CD racks and table lamps with heavy bases. For the purpose of storing, or holstering a Sledgehammer, it is considered Large sized.

Stun Gun Although the name suggests a ranged weapon, a stun gun requires physical contact to affect its target. The Taser is a ranged weapon with a similar effect. On a successful hit, the stun gun deals 1d3 Electricity damage (do not add the character's POW bonus), and the target must make a Fortitude Saving Throw [TN15] or be paralyzed for 1d6 rounds. Improvised versions of this weapon include cattle prods and electric cords with stripped insulation.

Stun Shield A shield composed of high impact plastic, complete with inlaid electrical contacts, that when the shield is activated, will shock and incapacitate the person struck. A stun shield provides one-quarter cover in one direction. A stun shield has to be activated, which costs 2 Combat Points. On a successful hit with an activated shield, the stun shield deals 1d3 points of Electricity damage (do not add the character's POW bonus) and the target must make a Fortitude Saving Throw [TN13] or be paralyzed for 1d2 rounds. Stun shields can not be disarmed.

Riot Shield A shield composed of high impact plastic, often used in riot situations by law enforcement. A riot shield provides one-quarter cover in one direction. Improvised versions of riot shields include end tables, trash-can lids, and low quality, homemade versions. Riot shields do not provide cover against any weapons that provide Plasma or Ballistic damage. Riot shields can not be disarmed.

Entry Shield A shield used in high risk situations to protect against enemy fire. An entry shield provides three-quarters cover in one direction. A shield may be used to melee attack. Improvised versions of entry shields include heavy steel plates. Entry shields can not be disarmed.

Pistol Whip Not a melee weapon in the traditional sense, rather using the side of a handgun to strike a target. While pistol whipping is an improvised weapon, it does not incur the penalties for being one, nor will it break if used as a weapon. If a character provokes an AoO on a character wielding a handgun that can pistol whip, that character can use the pistol whip to perform their AoO. A pistol whip can not be upgraded with any melee upgrades. Adds the character's POW modifier to the damage as normal.

Handgun Weight	Damage
0.0 to 1.0 lbs	1d2
1.1 to 2.5 lbs	1d3
2.6 to 4.0 lbs	1d4
4.1 to 5.0 lbs	1d4+2
5.1 lbs and heavier	2d4+1

Table 116: Pistol Whip Damage

Buttstroke A buttstroke is not a melee weapon in the traditional sense, rather using the butt of a longarm to strike a target. While buttstroking is an improvised weapon, it does not incur the penalties for being one, nor will it break if used as a weapon. All weapons with a fixed stock can be used to buttstroke. If a character provokes an AoO on a character wielding a longarm that can buttstroke, that character can use the buttstroke to perform their AoO. A buttstroke can not be upgraded with any melee upgrades.

Weapon	Dmg	Critical	Type	Sz	Wt	Cost
Unarmed Strikes	1d3	16-18	Bludgeoning (Non-lethal)	—	—	—
Brass Knuckles	1d4	16-18	Bludgeoning	T	1.1	2
Wrist Wraps	1d3+1	16-18	Bludgeoning (Non-lethal)	T	0.3	1
Push Blade	1d3	16-18	Piercing	T	1.0	2
Pistol Whip	See text	16-18	Bludgeoning	—	—	—
Buttstroke	1d6	16-18	Bludgeoning	—	—	—
Field Knife	2d3	14-18	Slashing	M	2.0	5
Survival Knife	1d4	14-18	Slashing	S	1.5	3
Combat Knife	1d4	14-18	Piercing	S	1.5	3
Pocket Knife	1d4	15-18	Piercing	T	1.0	2
Escape Knife	1d2+1	16-18	Piercing	D	0.4	4
Kukri	1d4+1	12-18	Slashing	M	1.6	5
Karambit	3d2	16-18	Slashing	S	0.9	4
Injection Knife	1d4 8d4	16-18	Piercing Cold	S	1.2	21
Ballistic Knife	3d4	16-18	Piercing	S	2.0	20
Light Club	1d6	16-18	Bludgeoning	S	1.2	2
Medium Club	1d8	16-18	Bludgeoning	M	1.8	2
Heavy Club	1d10	16-18	Bludgeoning	L	2.5	3
Tool Hammer	2d4	16-18	Bludgeoning	S	1.6	1
Sledgehammer	3d6	16-18	Bludgeoning	H	10.0	3
Sap	1d6	16-18	Bludgeoning (Non-lethal)	S	2.0	1
Stun Gun	1d3	16-18	Electricity	T	1.1	2
Riot Shield	1d4	16-18	Bludgeoning	M	3.0	6
Entry Shield	1d6	16-18	Bludgeoning	L	13.0	75
Stun Shield	1d4	16-18	Bludgeoning	M	3.0	14

Table 117: Simple Melee Weapons

Archaic Melee Weapons

Most of these weapons deal damage by means of a blade or a sharp point. Some of them are moderately expensive, reflecting their archaic nature in modern society. These are usually mass produced modern reproductions of the represented weapons; true reproductions fall under mastercraft examples.

Archaic Melee Weapon Proficiency Groups

Combat Swords Shortsword, bastard sword, broadsword, longsword, greatsword, khepesh, and maquahuitl.
Fencing Swords Rapier, sabre, cutlass, parrying dagger, sai and jitte.
Axes Battle-axe, broadaxe, and hand axe.
Flexible Weapons Bullwhip, weighted chain, whip chain, nunchaku, and three-section staff.
Staffs Long staff, quarterstaff, and short staff.
Bows Compound bow, recurve bow, slingshot, crossbow and spear gun.
Spears Spears and attached bayonet, halberd.
Maces Light and heavy mace, and flail.
Picks Light and heavy pick, and kama.

Battle-axe A battle-axe is generally a double-bladed axe, swung heavily to cut deep into objects. An improvised version is a fire axe.

Broadaxe A broadaxe is a heavy single-bladed axe is intended for heavy chopping projects. An improvised version is a lumber axe.

Hand Axe A hand axe is a light single-bladed axe normally used in one hand. An improvised version of this is a hatchet, throwing axe or a camp axe.

Bullwhip

A bullwhip is a single-tailed whip, usually made of braided leather or nylon, designed as a tool for working with livestock or competition. A character can strike opponents up to 15' away with a bullwhip. Bullwhips can be used to perform trip attacks, and do not provoke AoO when doing so. If the character is tripped during their own trip attempt, the character can drop the whip to avoid being tripped. When using a whip, the character receives a +2 bonus on their opposed attack roll when attempting to disarm an opponent, including the roll to keep from being disarmed if the character fails to disarm the opponent.

Weighted Chain A weighted chain consists of a light 10-15' chain and a set of metal weights used to entangle an opponent, or their weapon. It can be whirled quickly, striking with hard blows from the weights. An improvised version of this weapon is a pair of horseshoes tied to the ends of a rope. The weighted chain can be used as a double weapon. A character can fight with it as if fighting with two weapons, incurring all the normal attack penalties as if using a one-handed weapon and a Small weapon. In this case the weapon's reach is reduced by 5'. A character can strike opponents up to 10' away with a weighted chain.

Whip Chain A whip chain is a flexible weapon is similar to a three-section staff, featuring 8-10 short metal bars, connected by 3-4 links of chain. It is wielded much like a whip, with a single handle at one end. An improvised version of this weapon might consist of links of steel cable.
Because a chain can wrap around an enemy's leg or other limb, a character can make a trip attack with it. If the character is tripped during their own trip attempt, the character can drop the chain to avoid being tripped. When using a chain, the character receives a +2 equipment bonus when attempting to trip, or disarm (including the roll to avoid being disarmed if the character fails to disarm the opponent). A whip chain has a maximum range of 15'.

Nunchaku A popular martial arts weapon, the nunchaku is made of two wooden shafts connected by a short length of rope or chain. Improvised versions of this unique weapon are extremely unlikely. .

Three-Section Staff Originally a farm implement for threshing grain, this weapon is composed of three sections of wood of equal lengths, joined at the ends by chain, leather, or rope. The three-section staff requires two hands to use. Improvised versions of this unique weapon are extremely unlikely. A character can strike opponents up to 10' away with a three-section staff.

The three-section staff is a double weapon. A character can fight with it as if fighting with two weapons, but if they do, the character incurs all the normal attack penalties associated with fighting with two weapons, as if using a one-handed weapon and a Small weapon.

Shortsword A shortsword is a short-bladed sword that is heavily weighted toward the handle. A classic example is a wakizashi. A modern version is a machete and an improvised version is a garden spade.

Bastard Sword A bastard sword is a long, narrow sword which often features a handle designed for easy two-handed use. A classic example is a katana. An improvised version of this weapon is a lumber saw. Bastard swords come with a tactical sheath.

Broadsword A broadsword features a slightly shorter and heavier blade than a bastard sword. An improvised version is the blade of a paper cutter. Broadswords come with a tactical sheath.

Longsword A longsword is sword with a long blade, often used with two hands. A Classic example is a Japanese ōdachi. An improvised version might be a piece of rebar. Longswords may be used to slash or thrust, and as such the user may select what kind of damage they wish to use before attacking. Longswords come with a tactical sheath.

Great Sword A great sword is a massive two-handed sword is reminiscent of an iron beam with a handle and a cutting edge. A character can strike opponents up to 10' away with a great sword. A classic example is the German zweihänder. Improvised versions of this unique weapon are extremely unlikely. Great swords come with a tactical sheath.

Khepesh A khepesh is a sword with an outwardly curving sickle blade, that curls back into a hook. A character can make a trip attack with the khepesh. The character can not be tripped when using a khepesh to trip. Khepeshes come with a tactical sheath.

Maquahuitl A maquahuitl is a weapon shaped like a wooden sword, that has its sides embedded with prismatic blades made from obsidian. It was similar to a large wooden club with cuts in the side to hold the sharpened obsidian, and can be used to both inflict ripping slashing damage, or bludgeoning damage. When using a maquahuitl, the player must declare what kind of damage they are attempting to inflict. This weapon has two sets of damage types, damage values and Critical Threat levels, which is determined by which damage the character chooses to inflict. Maquahuitls can not perform thrust attacks.

Rapier A lightweight sword with a thin blade. A character can strike opponents up to 10' away with a rapier, but does not provoke AoO if a creature enters the range of the Rapier. Improvised versions of this weapon are uncommon. Rapiers come with a tactical sheath.

Sabre A sword that has a curved, single-edged blade and a rather large handguard, covering the knuckles of the hand as well as the thumb and forefinger. Sabres may be used to slash or thrust, and as such the user may select what kind of damage they wish to use before attacking. An improvised version of this weapon would be extremely unlikely. Sabres come with a tactical sheath.

Cutlass A short, broad sabre with a straight or slightly curved blade sharpened on the cutting edge and a hilt often featuring a solid cupped or basket shaped guard. An improvised version of this weapon would be extremely unlikely. Cutlasses come with a tactical sheath.

Parrying Dagger Parrying daggers are a category of small handheld knives, designed to be used as off-hand weapons in conjunction with a single-handed sword such as a rapier or sabre. As the name implies they were designed to parry or defend. An improvised version of this weapon is extremely unlikely. Parrying daggers come with a tactical sheath.

When used by a character with the Two Weapon Reaction feat, a parrying dagger grants a +2 Miscellaneous bonus to DEF, and when fighting defensively or using the parry reaction, the character gets an additional +2 to DEF.

Sai and Jitte A sai is a weapon that has a pointed, prong shaped metal baton, with two curved prongs called yoku projecting from the handle, that are used to trapping strikes and blocking attacks. A jitte is a single shafted sai with a small hook protruding upward, used to block, catch, and even break swords. The character receives a +6 bonus when using a sai or jitte to disarm an enemy using a Combat or Fencing Sword.

Short Staff A short staff is roughly waist- to chest-high on its wielder. A classic example is the jo stick. Improvised versions of this weapon include ski poles and the remains of a long staff cut in two. Short staffs can be used to perform trip attacks. Shortstaffs are considered double weapons and can be used to two weapon fight.

Quarterstaff A quarterstaff is roughly the same height as its wielder. Improvised versions of this weapon include broom handles, handy tree branches, skis, and walking sticks. Quarterstaffs can be used to perform trip attacks. Quarterstaffs are considered double weapons and can be used to two weapon fight.

Long Staff A long staff ranges from 3-6' taller than its wielder. A classic example is the bo stick. Improvised versions of this weapon include flagpoles and long pipes. A character can strike opponents up to 10' away with a long staff. Long staffs can be used to perform trip attacks. Long staffs are considered double weapons and can be used to two weapon fight

Rifle Bayonet The statistics given describe a bayonet fixed at the end of a longarm with an appropriate mount. With the bayonet fixed, the longarm becomes a double weapon, club-like at one end and spear-like at the other. A character can fight with it as if fighting with two weapons, but if the character does so, they incur all the normal attack penalties associated with fighting with two weapons, as if using a one-handed weapon and a Small weapon. Any survival knife, combat knife, or field knife can be used as a bayonet, taking the damage dice and damage type of the selected knife with a +1 damage die, and any contact upgrades that were placed on the knife transfer over to the rifle bayonet. The clublike end of a rifle bayonet is a buttstroke and incurs all the bonuses and penalties of one. A character can strike opponents up to 10' away with the blade end of a rifle bayonet, but can't use it against an adjacent foe.

Short Spear A short spear is roughly waist- to chest-high on its wielder. A classic example is the hasta. Improvised versions of this weapon include hiking poles and the remains of a long spear cut in two. A character can strike opponents up to 10' away with a short spear, but can't use it against an adjacent foe. Short spears can be used to perform trip attacks.

Long Spear A long spear ranges from 3-6' taller than its wielder. Classic examples are pike or naginata. Improvised versions of this weapon include flagpoles with points and long pipes with sharp ends. A character can strike opponents up to 15' away with a long spear, but can't use it against an adjacent foe. Long spears can be used to perform trip attacks.

Halberd A halberd consists of an axe blade topped with a spike mounted on a long shaft very much like a spear. Has a hook on the opposite end, for grasping long reaching enemies. Halberds may be used to bash, slash or thrust, and as such the user may select what kind of damage they wish to use before attacking. A character can strike opponents up to 10' away with a halberd, but can't use it against an adjacent foe. Halberds can be used to perform trip attacks.

Light/Heavy Mace A light mace is a development of the club weighted with flanges to deal more damage to the target. A heavy mace is just as a light mace, but must be wielded with two hands. This weapon does bludgeoning damage. Improvised versions of this weapon would include baseball bats with nails or rivets.

Flail This weapon consists of a spiked iron ball attached to an iron or wooden rod by a long piece of chain. When attacking a target using a shield, the target gains no benefits from the shield. No improvised weapons mimic this unique weapon.

Light Pick A weapon designed to concentrate its force on a small penetrating point in order to defeat armor. It is a small, one-handed instrument that includes a single point. An improvised version of this weapon might include rock cutting picks.

Heavy Pick A larger, two-handed version of the light pick. An improvised version of this weapon might include a miner's pickaxe.

Kama A kama is a wooden shaft with a scythe blade extending at a right angle out from the shaft. The character receives a +1 bonus when using a kama to disarm an enemy. Improvised versions of this unique weapon are extremely unlikely.

Weapon	Damage	Critical	Type	Sz	Wt	Cost
Battle-axe	1d10+2	15-18	Slashing	L	8.0	4
Broadaxe	1d8+2	15-18	Slashing	L	5.0	3
Hand Axe	1d6+2	15-18	Slashing	M	3.0	2
Bullwhip	1d4	16-18	Slashing	S	1.8	1
Weighted Chain	3d8	16-18	Bludgeoning	L	5.3	6
Whip Chain	2d6	16-18	Bludgeoning	M	4.3	7
Nunchaku	1d6	16-18	Bludgeoning	S	1.0	3
Three-Section Staff	1d12	16-18	Bludgeoning	L	6.3	4
Shortsword	2d3+1	15-18	Piercing	M	2.0	2
Bastard Sword	2d6	15-18	Slashing	L	4.5	6
Broadsword	1d6	13-18	Slashing	M	2.0	6
Longsword	1d8	14-18	Slashing Piercing	L	3.1	7
Great Sword	2d10	14-18	Slashing	H	8.0	11
Khepesh	1d12	15-18	Slashing	L	3.8	21
Maquahuitl	1d6 2d6+1	15-18 16-18	Bludgeoning Slashing	M	3.1	14
Rapier	1d6	14-18	Piercing	M	2.3	6
Sabre	1d8	14-18	Slashing Piercing	M	3.1	6
Cutlass	3d3	14-18	Slashing	M	2.5	7
Parrying Dagger	1d3	14-18	Piercing	S	1.1	3
Sai/Jitte	1d4	16-18	Bludgeoning	S	1.5	5
Long Staff	1d10	16-18	Bludgeoning	L	4.0	5
Quarterstaff	1d8	16-18	Bludgeoning	L	3.0	4
Short Staff	1d6	16-18	Bludgeoning	M	2.0	3
Rifle Bayonet	See Text 1d6	16-18	See Text Bludgeoning	L	—	2
Long Spear	2d8 1d8	15-18	Piercing Bludgeoning	L	6.0	5
Short Spear	2d6 1d4	15-18	Piercing Bludgeoning	M	4.0	4
Light Mace	1d12	16-18	Bludgeoning	M	5.0	6
Heavy Mace	2d12	16-18	Bludgeoning	L	9.0	8
Flail	3d4	16-18	Piercing/Bludgeoning	L	9.0	8
Light Pick	1d10	13-18	Piercing	M	3.0	7
Heavy Pick	3d6	13-18	Piercing	L	8.0	15
Kama	2d6	16-18	Slashing	S	2.5	2
Halberd	2d8 1d4	16-18	Piercing Slashing Bludgeoning	L	6.0	11

Table 118: Archaic Melee Weapons

Exotic Melee Weapons

Most exotic weapons are either atypical in form. The Exotic Melee Weapons Proficiency feat is required in order to avoid the –4 non-proficient penalty.

Garrote This weapon consists of a short cord, often with handles at each end. It is used to improve leverage when choking someone from behind and grants a +10 equipment bonus to all grapple checks to strangle. Improvised versions of this weapon include shoelaces and lengths of extension cord. Garrotes require two hands to use.

Chainsaw Military and police units use powered saws to cut through fences and open doors rapidly. They are sometimes pressed into service as weapons, often by people who watch too many movies. Improvised versions of this unique weapon do not exist. Chainsaws can not accept contact upgrades.

Weapon	Damage	Critical	Type	Sz	Wt	Cost
Garrote	Special	—	—	T	0.1	2
Chainsaw	4d6	16-18	Slashing	L	11.0	6

Table 119: Exotic Melee Weapons

Ranged Weapons

Ranged weapons are classified into three categories: firearms, non-ballistic, and thrown. When using any ranged weapon the wielder applies their MRK modifier to the attack roll.

Range Increment & Range Penalty

All ranged weapons have a range increment. The range penalty for a ranged weapon depends on what weapon the character is using and how far away the target is. Any attack from a distance of less than one full range increment is not penalized for range. However, each full range increment causes a cumulative –2 penalty on the attack roll. When a weapon uses shells, the range increment affects both its attack *and* damage roll, providing a cumulative –2 penalty for each. Ranged weapons that fire projectiles can shoot at ranges up to ten increments. Thrown weapons have a maximum range of five range increments.

Firearms

Handguns, machine pistols, sub-machine guns, carbines, shotguns, rifles, grenade launchers, machine guns and some rocket launchers are all personal firearms. A personal firearm is any firearm designed to be carried and used by a single person.

Firearms are cartridge weapons. A cartridge is a self-contained package consisting of the projectile, the propellant, a primer, and a casing to hold it all together. The projectile is the bullet or shot that the weapon fires. The propellant is a charge of gunpowder. When the round is fired, the propellant charge burns up very quickly; in a tiny fraction of a second. In doing so, it expands to many times its original volume. This creates tremendous pressure within the weapon, which forces the bullet or shot down the gun's barrel and out toward the target. The primer is a small explosive cap in the base of the cartridge. When the primer is struck by the weapon's hammer or firing pin, it explodes. This, in turn, ignites the propellant and fires the weapon. The casing is a cylindrical shell that holds the various components together. The bullet goes at one end, and the primer goes at the other. The propellant charge goes in between. In high-powered weapons, such as rifles, casings are often necked, meaning that the casing is wider than the bullet. This configuration allows more propellant to be loaded, which results in a more powerful blast when the weapon is fired. Casings are usually made out of metal (brass is the most common material). Shotgun shells are often made from paper or plastic instead.

All firearms are ballistic damage weapons and have a Critical Threat range of 16-18, unless otherwise noted.

Error Range Error Range represents the likelihood a firearm will fail when used. When combat starts, the GM secretly rolls a single d% for every weapon that has error range. If the roll is equal to or less than the weapon's total error range then the weapon has the possibility to jam during this combat. Combat proceeds as normal, but if a character using an affected firearm rolls a specific natural attack roll, the firearm has become jammed; the weapon can't be fired until the shooter spends 12 Combat Points to clear the jam. Anytime a weapon's error range changes during combat, the GM notes if the weapon is below or above the threshold for jamming, and makes note of that weapon if it is below the threshold for jamming.

Error Range can be removed from weapons that are manufactured with it by upgrading the weapon with Clockwork Action. There are many things that can increase the Error Range in a weapon, and make it unreliable to use.

Age Age and heavy use can render a weapon unreliable. While this should never be a factor through the degree of time and use typical to a normal campaign, the GM can determine that an older weapon obtained by the characters is already unreliable due to age. A weapon that has been sitting in a museum might not become unreliable for fifty years, but one that has sat in the leaky trunk of an abandoned car for a couple of months might be unreliable. This grants a +40 towards the weapon's error range and only goes away if the weapon is repaired and cleaned (Craft (Mechanical) repair [TN20] check).

Damage Any firearm that has taken 1 point or more of damage is unreliable. This grants a +15 toward the weapon's error range and only goes away if the weapon is repaired (Craft (Mechanical) repair [TN22] check).

Immersion Immersion in water, mud, or other liquids can affect reliability. Any time a weapon is immersed in a liquid it gains a +20 toward the weapon's error range. Slight wetness, such as that caused by rain, is not sufficient to affect the weapon. The error range increase goes away when the weapon is dried out, which takes 1 minute if the weapon is disassembled and dried by hand, or 6 hours if it is left to dry on its own.

Unreliable Ammunition Alternate forms of ammunition can cause a weapon's error range to increase and affect the weapon's overall reliability. The error range goes away when the ammunition is removed or is no longer used.

Error Range	Attack Roll	Error Range	Attack Roll
5-15%	3	50%	3-10
20%	3-4	55%	3-11
25%	3-5	60%	3-12
30%	3-6	65%	3-13
35%	3-7	70%	3-14
40%	3-8	75%	3-16
45%	3-9	80-100%	Any

Table 120: Error Range Natural Attack Rolls

Recoil Recoil is the reaction of the projectile firing out of the barrel of a firearm. In single shots, recoil is not an issue; enough time is given between shots so that recoil can be absorbed and aim reacquired. In multi-shots, recoil can affect aim and throw off shots. All calibers have a recoil modifier, that will modify all firearm attacks that take use of the Caliber Recoil Penalty. The strength score of a character will modify the recoil of a firearm, at the rate of STR–10. While the strength score can eliminate the recoil penalty, it can never provide a bonus to ranged attacks.

Firearms Tables

Firearm The name and model of the firearm.

Caliber The caliber the firearm fires. Multiple listings with an "or" means that the firearm can chamber and fire any of the listed calibers. Multiple listings with an "and" means that the weapon can chamber both rounds at the same time. The value in the parentheses is the standard dice damage for the caliber and the Caliber Recoil Penalty for that caliber.

Magazine The size of all available magazines for the firearm, how much each one costs, and what kind of feeding mechanism the firearm uses. Listings of specific firearms means that this firearm uses that type of magazine, and they are interchangeable, if the magazine size, firearm model, and caliber match on both firearms.

Magazine listings are given as `Type:Size:Cost`. Size listings separated with a | indicate that multiple sizes are available for that price. Listings separated with a / indicate a new size:cost pair.

Bigger Magazines in Guns

It's not uncommon for a character to use a larger magazine than the firearm is equipped with. When doing so it makes the firearm harder to conceal.
The following rules are for firearms that are Small size or smaller:

- When using a magazine that holds up to 3 more rounds than the standard equipment magazine, there is no change.
- When using a magazine that holds 4 or more rounds than the standard equipment magazine, the character gains a -1 to Stealth to conceal that firearm for every 4 rounds that magazine holds beyond the standard equipment magazine.

The following rules are for firearms that are Medium size or larger:

- When using a magazine that holds 4 or less rounds than the standard equipment magazine, the character gains a +1 to Stealth to conceal that firearm.

Upgrade Points (Upg) The type of upgrades the firearm can accept.

F Frame / **B** Barrel / **O** Optics / **T** Tactical

Range Increment (Rng) The range increment for the firearm. All shotgun range increments effects both their damage and range. All benefits from upgrades have been already calculated in the weapon's range increment.

The number in parenthesis is the range of the firearm without the optical attachments. When putting on a different optic, use this number.

Rate of Fire (RoF) The rate of fire for the firearm or the action of the firearm.

Single Action (SA) Single Action requires the hammer to be pulled back before firing again. Single action firearms that take box magazines or have internal magazines are considered semi-automatic firearms. All Single Action firearms gain a +1 attack bonus on all single shot and potshot attacks. Single Action firearms with cylinders cost +1 Combat Points when performing a single shot attack.

Double Action/Single Action (DA/SA) Double Action/Single Action where the first shot is a heavy double action pull and the second is a crisp single action pull. DA/SA firearms are considered semi-automatic firearms. All single shot attacks after the first gain a +1 attack bonus. The first shot has no bonus or penalty, but the hammer may be cocked back for 1 Combat Points, giving a +1 attack bonus for the first shot.

Revolver Double Action (RDA) Revolver Double Action is similar to DA/SA but every shot is a heavy double action pull. Double Action firearms are considered semi-automatic firearms. The hammer is exposed and can be cocked back for 1 Combat Points, gaining a +1 attack bonus on single shot attacks.

Double Action Only (DAO) Double Action Only is similar to DA but the hammer can not be cocked back. Double Action Only firearms are considered semi-automatic firearms.

Preset Action (PA) Preset Action, the action is at half-cock giving a light trigger pull. Preset Action firearms are considered semi-automatic firearms. All single shot attacks have a +1 attack bonus.

Lever Action The firearm has a lever that must be worked after each shot. Attacks cost +3 Combat Points when firing from a prone position, but –1 Combat Points when performing single shot attacks. Lever action firearms can perform single shot and potshot attacks.

Pump Action The firearm has a pump on the forearm that is worked back and forth to cycle a new round. Pump action firearms can perform single shot and potshot attacks. Pump action firearms require two hands to use, regardless of their size.

Slam A subset of pump action. Firearms with this have no disconnect and will discharge if pumped while the trigger is held down. Slam firearms require two hands to use, regardless of their size.

Bolt Action The firearm has a bolt that must be worked after each shot, expending the empty round and reloading a new round. All single shot attacks have a +1 attack bonus, but cost +1 Combat Point. Bolt action firearms can perform single shot and potshot attacks. Bolt action firearms require two hands to use, regardless of their size.

Self Loading (SL) Each pull of the trigger reloads the firearm. It is synonymous with semi-automatic, and self-loading firearms are considered semi-automatic firearms.

Burst fire (2RB/3RB) Stands for burst fire, in 2RB and 3RB variants. 2RB Stands for 2 round burst, which allows the firearm to perform 2 round burst fire attacks, and 3RB stands for 3 round burst, which allows the firearm to perform 3 round burst fire attacks.

Fully Automatic (Auto) Stands for fully automatic where the firearm will continue to fire as long as the trigger is pressed down. The firearm can perform autofire, suppressive fire, sweepfire, sprayfire, or burst fire attacks. Slow autofire means the weapon has a slow rate of fire. Slow autofire fires less rounds per second, giving a more controllable rate of fire. Slow autofire can perform single shot attacks, double tap attacks and potshot attacks, but can't perform burst fire attacks. Medium autofire has a standard rate of fire. It has no penalties or bonuses to its attacks. Fast autofire fires more rounds per second, putting more bullets downrange. It has a -2 attack penalty to all autofire, suppressive fire, burst fire, sweepfire, and sprayfire attacks, but gains +1 dice damage on all autofire, suppressive fire, burst fire, sweepfire and sprayfire attacks.

S Slow / **M** Medium / **F** Fast

Single The firearm can only hold a single round and must be reloaded after every shot. Single shot firearms can perform single shot and potshot attacks.

Double The firearm has two triggers that can be depressed at the same time, to perform a double-fire attack, or one at a time to perform two single attacks, such as single shot or potshots.

Open Bolt (OB) The bolt locks back and slams forward with every pull of the trigger. Open bolt firearms have a –2 attack penalty for single shot attacks, a –1 penalty for all multi-shot attacks and -1 Combat Point when reloading. They can't have a round chambered and can't be cycled without firing a round.

Closed Bolt (CB) The bolt is closed on a full chamber. Firearms are assumed to be CB unless otherwise stated.

Size (Sz) The size of the firearm. The smaller size denotes how large the weapon is when it is folded up, while the larger size denotes how large the weapon is fully extended, or assembled.

Weight (Wt) How much the firearm weighs with all of the accessories attached that are listed. The weight is in lbs.

Wealth Point Cost The cost of the firearm to purchase, not including the license.

Error Range (Err) The range of error the firearm possesses when purchased brand new.

Standard Equipment

What you receive when you purchase the firearm, fully assembled. If the firearm has a permanent piece of equipment, that equipment cannot be removed or modified. These listings only include anything above and beyond the empty firearm. The listings also modify any statistics to the firearm, and have already been calculated into any changes. All frame upgrades present on the firearm are built in from the factory and do not occupy any upgrade points.

Handguns

"No wise man ever took a handgun to a gunfight" —Unknown

A handgun is a firearm designed to have the potential to be held and operated by one hand, although not necessarily used that way. This characteristic differentiates handguns as a general class of firearms from long guns such as rifles and shotguns (which are usually mounted against the shoulder). Major handgun subtypes are the revolver and pistol, and are split into various subtypes based on size and use.

There are handguns that are available to suit nearly any budget. Low-cost models featuring simple operating systems, crude manufacturing, and low-quality materials are widely produced, while more reliable and sophisticated service weapons that are suitable for more active use form the middle of the market. At the high end are advanced custom pistols, produced for Olympic-class target shooting, exclusive private collections, or specialized forces, such as SWAT.

Handguns differ from long guns in the fact that they are generally regarded as more personal weapons: The style, model, and even caliber, can tell quite a lot about a character, and they are generally selected by hand, rather than issued. Handgun selection generally mirrors personal preference out in combat, more so than long guns as a handgun is generally always worn, and only drawn when needed. They are also easier to conceal than a long gun, allowing for a seemingly unarmed appearance when worn with the correct holster and clothing. A handgun should always be chosen carefully, the character's personality, backstory, and preference should definitely have some sway and appearance in their choice.

Modern Handguns

The handguns listed under this section represent the selection from the mid-1950s to the present day. These are the mostly commonly encountered handguns in this day and age.

Modern Holdout Handguns A holdout handgun is a handgun designed as a last ditch defensive weapon, to be drawn when all other weapons are compromised. Holdout handguns go well with a pocket holster, conceal carry holster, ankle holster, or tummy holster, but can also be stuck in a belt holster if one wishes.

Holdout handguns generally make poor sidearms, because of low capacity, weak calibers, or lack of barrel length to get the desired accuracy at a distance one would use a sidearm. They are generally reserved for people who need a handgun, but they don't need it to be big, flashy, or often times, expensive, or if one needs to stow a handgun in a small area, such as under the seat of a car, or in a glove compartment.

Modern Holdout Handguns

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Pocket Protector	See Text	Int:2	F	10'	SA	D	0.9	11	0%	L
This firearm can be purchased in one of the following calibers: .22 Long Rifle (1d4/+0) and .22 Short (1d2/+0), or .22 WMR (2d4+2/-2).										
Acme Pocket Defender	.32 ACP (1d6/-1)	Box:6:1	F	25'	DAO	T	1.1	18	0%	L
Two 6 round magazines.										

Table 121: Modern Holdout Handguns

Modern Backup Handguns A backup handgun is a scaled down version of a service revolver or pistol, designed for easy concealment. Their ammunition capacities are likewise scaled down, however, making them decent sidearms, but not the first to be chosen. Backup handguns go well with shoulder holsters, belt holsters, ankle holsters, or even tactical holsters.

Backup handguns are generally the go-to guns when a main sidearm is compromised, or is otherwise unavailable. They make decent sidearms for smaller framed people, where a full-sized handgun would be unwieldy or uncomfortable, or when decent, hard hitting firepower is needed, but not at the size of a full-sized handgun. They should not be discarded because of their backup nature: Backup handguns are often chambered in serviceable calibers, and often take the same magazines as their larger counterparts.

Modern Backup Handguns

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Backup Special	.38 Special (2d4+1/-1)	Cyl:5	F B	25'	DA	S	1.6	13	0%	L
Not affected by Error Range from ammunition.										
Acme Service Micro Guard	9x19mm (2d6/-2)	Box:9:1	F B	20'	PA	T	1.4	22	0%	L
Three 9 round magazines.										
Acme Overseer SubCompacter	.40 S&W (3d4/-3)	Box:8:1	F B	20'	DA/SA	T	1.6	23	0%	L
Three 8 round magazines.										
Acme Military Defender	.45 ACP (3d4+2/-4)	Box:6:1	F B	25'	SA	T	1.9	25	0%	L
Three 6 round magazines.										

Table 122: Modern Backup Handguns

Modern Full Size Handguns Full-size handguns usually serve as the duty weapons of most military forces and law enforcement officers around the world. They're built for effectiveness over concealment, with bulky utilitarian frames, heavy grips, and high ammunition capacities. Full-size handguns go well with any holster that they can fit in, but generally are put in belt holsters, tactical holsters, and shoulder holsters

Full-size handguns do not necessarily have to meet the concealable issue that backup and holdout handguns have, therefore are generally larger and possess plenty of ammunition to have an extended fight with. The downsides are that they do shoot handgun ammunition, and are weak when compared to rifles and shotguns. Full sized handguns should be used when concealment is not a large issue, but a full sized rifle or shotgun would be unwieldy to use, or too heavy to carry. When used with longarms, they should supplement the weapon, particularity as a backup gun.

Modern-day Full Size Handguns

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Magnum Special	.357 Magnum (3d4+3/-4) or .38 Special (2d4+1/-1)	Cyl:5	F B	35'	DA	S	2.2	27	0%	L
Not affected by Error Range from ammunition. +1 to Stealth to hide weapon.										
Acme Service Mini Guard	9x19mm (2d6/-2)	Box:13:1	F B	30'	PA	S	1.7	24	0%	L
Three 13 round magazines.										
Acme Overseer Compacter	.40 S&W (3d4/-3)	Box:10:1	F B	30'	DA/SA	S	1.9	25	0%	L
Three 10 round magazines.										

Table 123: Modern Full Size Handguns

Modern Target Handguns and Hunting Handguns A target handgun is a handgun that is built specifically for long or short range target shooting, usually chambered in an inexpensive caliber, such as .22 Long Rifle. A hunting handgun is a large handgun that shoots a large caliber bullet, usually used for hunting large game. Target handguns and hunting handguns are too big to conceal, and go well with tactical holsters, and some slings.

Target handguns should not be pushed into service as a combat weapon unless absolutely necessary, as the calibers they fire are generally weak in nature. Hunting handguns, on the other hand, are generally larger versions of full sized handguns, and can make suitable combat handguns, even if somewhat unwieldy.

Some target handguns are simply cut down lever action rifles, that have extremely short barrels (for a rifle, but long for a handgun), but still fire a full powered handgun cartridge.

Modern-day Target and Hunting Handguns

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Target Plinker	.22 Long Rifle (1d4/+0)	Box:8:1	F B	45'	SA	S	1.7	12	0%	L
Three 8 round magazines. -2 to Stealth to hide weapon.										
Acme Cowboy Plinker	.22 Long Rifle (1d4/+0)	Cyl:5	F B	40'	SA	S	1.6	9	0%	L
Can not use speed loaders.										

Table 124: Modern Target & Hunting Handguns

Personal Defense Weapons

"Pull Trigger, Piss Bullets" —Anonymous H&K Representative

A personal defense weapon (PDW) is a compact semi-automatic or fully automatic firearm similar in most respects to a sub-machine gun, but firing a (often proprietary) rifle round, giving a PDW better range, accuracy and armor-penetrating capability than sub-machine guns, which fire pistol-caliber cartridges. The class of weapon as it exists today evolved as a hybrid between a sub-machine gun and a carbine, retaining the compact size and ammunition capacity of the former while adding the ammunition power, accuracy and penetration of the latter. For the context of this book, PDWs include sub-machine guns as well as machine pistols.

A machine pistol is a handgun-style, often magazine-fed and self-loading firearm, capable of fully automatic or burst fire, and normally chambered for pistol cartridges.

A sub-machine gun is an automatic carbine, designed to fire pistol cartridges. It combines the automatic fire of a machine gun with the cartridge of a pistol, which allows for controllable automatic fire in a close setting. Sub-machine guns almost always have stocks, and are used like close ranged rifles.

Modern Personal Defense Weapons

The PDWs listed under this section represent the selection from the mid-1950s to the present day. These are the mostly commonly encountered PDWs in this day and age.

Modern Machine Pistols

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Service Automatic	9x19mm (2d6/-2)	Box:22:1	F B 1T	35'	PA/Auto(F)	S	1.5	25	0%	M&P
Three 22 round magazines.										
Acme Overseer Automatic	.40 S&W (3d4/-3)	Box:17:1	F B 1T	35'	PA/Auto(F)	L	1.7	28	0%	M&P
Three 17 round magazines.										

Table 125: Modern Machine Pistols

Modern SMGs

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Police Stewart	9x19mm (2d6/-2)	Box:35:1	F B	45'	SL/2RB/3RB/Auto(F)	L	6.4	27	0%	M&P
Fixed Stock and three 35 round magazine.										

Table 126: Modern Sub-Machine Guns

Rifles

"This is my rifle. There are many like it, but this one is mine. My rifle is my best friend. It is my life. I must master it as I must master my life. My rifle, without me, is useless. Without my rifle, I am useless. I must fire my rifle true. I must shoot straighter than my enemy who is trying to kill me. I must shoot him before he shoots me. I will." —Excerpt from the Rifleman's Creed

Rifles are split into categories by their size, accessories, actions, and use.

When selecting a rifle, a character should always consider many things, such as what the role they plan to play with that rifle, the ammunition type, caliber, and accessories they will take use of. Rifles are best complimented with a variety of upgrades, and should take full use of them. Rifles are less personal weapons, more utilitarian weapons that are used and employed when needed, and stowed away when not.

Modern Carbines

A carbine is a longarm similar to, but shorter than, a rifle. Many carbines are shortened versions of full rifles, firing the same ammunition at a lower velocity due to a shorter barrel length, and as such, the range for carbines is usually less than their rifle counterparts.

Modern Carbines

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Warrior Combat Carbine	5.56x45mm (5d4/-5)	Box:20:1/30:2	F B O 4T	65'	SL/Auto(M)	L	6.5	62	0%	M&P
Synthetic stock, threaded barrel, patrol sling, bayonet (Survival Knife), and three 20 round magazines. Uses Acme Warrior Magazines.										

Table 127: Modern Carbines

Modern Assault, Battle, and Target Rifles

An assault rifle is an automatic rifle that Uses an intermediate cartridge and a detachable magazine. Assault rifles are the standard infantry weapons in most modern armies. Assault rifles are categorized in between light machine guns, which are intended more for sustained automatic fire in a light support role, and sub-machine guns, which fire a pistol cartridge rather than a rifle cartridge.

A battle rifle is a military service rifle that fires a full power rifle cartridge.

Target rifles are semi-automatic rifles that use a varying degrees of cartridges, from the lighter assault rifle cartridges, to the heavier battle rifle cartridges. Target rifles may retain and appear to be exactly like assault and battle rifles, even down to having part and magazine compatibility, but target rifles have a semi-automatic rate of fire only.

Assault rifles, battle rifles, and target rifles go well with a multitude of upgrades based on their use, and can take advantage of a wide variety of upgrades.

Modern Assault, Battle, and Target Rifles

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Warrior Combat Rifle	5.56x45mm (5d4/-5)	Box:20:1/30:2	F B O 4T	85'	SL/Auto(M)	L	7.2	65	0%	M&P
Fixed folding stock, threaded barrel, patrol sling, bayonet (Survival Knife), and three 20 round magazines. Uses Acme Warrior Magazines.										
Acme Hunter Rifle	.30-30 Winchester (4d6+1/-5)	Int:8	F B	80'	Lever	L	6.4	32	0%	L
Fixed stock. Not affected by Error Range from ammunition.										
Acme Farmer Rifle	5.56x45mm (5d4/-5)	Box:10:1/20:2/30:3	F B O	80'	SL	L	6.0	42	0%	L
Fixed stock and four 10 round magazine.										

Table 128: Modern Assault, Battle, and Target Rifles

Designated Marksman Rifles

A designated marksman rifle (DMR) is the weapon used by soldiers in the designated marksman role. The DM role fills the gap between a regular infantryman and a sniper and DMRs have been developed with this middle ground in mind.

Modern Designated Marksman Rifles

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Warrior Distance Rifle	5.56x45mm (5d4/-5)	Box:20:1/30:2	F B O 4T	95'	SL/3RB	L	7.2	85	0%	M&P
Fixed stock, bayonet lug, threaded barrel, and one 10 round magazine.										
Acme Rancher Rifle	5.56x45mm (5d4/-5)	Box:10:1/20:2/30:3	F B O	90'	SL	L	6.0	52	0%	L
Fixed stock, bayonet lug, threaded barrel, and two 10 round magazines.										

Table 129: Modern Designated Marksman Rifles

Bolt Action and Sniper Rifles

In military and law enforcement terminology, a sniper rifle is a precision rifle used to ensure more accurate placement of bullets at longer ranges than other small arms.

Bolt action rifles and sniper rifles, because of their use, will almost always use a scope of high magnification (at least x3),and a bipod. Accessories such as lasers, custom built stocks, and modified barrels are often built in as well, to achieve the best possible shot.

Modern Bolt Action and Sniper Rifles

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Gamestalker	.30-06 Springfield (6d6/-8)	Int:3	F B O	80'	Bolt	L	5.2	25	0%	L
Fixed stock. Not affected by Error Range from ammunition.										
Acme Precision Police	7.62x51mm (5d6/-6)	Box:5:2	F B O	95'	Bolt	L	5.7	46	0%	L
Fixed stock and three 5 round magazines. Not affected by Error Range from ammunition.										

Table 130: Modern Bolt Action and Sniper Rifles

Table 131: Expensive Modern Bolt Action and Sniper Rifles

Modern Anti-Materiel Rifles

An Anti-materiel rifle is a rifle designed to destroy hard targets, such as equipment, vehicles, and weapons, rather than at other combatants.

Bipods are mandatory, and various telescopic sights, tactical slings, patrol slings, and ergonomic stocks are all suitable for anti-materiel rifles.

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Vehicle Halter	.50 BMG (10d8/-16)	Box:5:6	F B O	180'	SL	H	26.3	240	0%	R
Fixed stock, threaded barrel, bipod and five 5 round magazines.										

Table 132: Modern Anti-Materiel Rifles

Shotguns

"Pistols put holes in people. Rifles put holes through people. Shotguns, at the right range, with the right load, with physically remove a chunk of shit off your opponent and throw that shit on the floor." —Clint Smith

A shotgun (also known as a scattergun and peppergun, or historically as a fowling piece) is a firearm that is usually designed to be fired from the shoulder, which uses the energy of a fixed shell to fire a number of small spherical pellets called shot, or a solid projectile called a slug.

Modern Sporting Shotguns

A sporting shotgun is a shotgun that focuses on accuracy, rather than ammo capacity. Sporting shotguns are simple to maintain, use, and clean. Most sporting shotguns are aimed at a particular sport, usually game hunting, for rifled barrels using slugs, or for fowl and clay shooting, with choked barrels. Sporting shotguns usually have lower capacities than their combat counterparts, but also less expensive, as they don't have to take the daily beatings of a combat shotgun, and thus don't need to be over engineered as such.

Modern Sporting Shotguns

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Claybuster	12 Gauge (5d6/-6)	Int:1	F B	45'	Single	L	6.1	12	0%	L
Fixed stock and a removable choke barrel. Not affected by Error Range from ammunition.										
Acme All-Purpose Field Gun	12 Gauge (5d6/-6)	Int:4	F B	40'	Pump	L	6.3	16	10%	L
Fixed stock and choked barrel. Not affected by Error Range from ammunition.										

Table 133: Modern Sporting Shotguns

Modern Combat Shotguns

A combat shotgun is a shotgun that focuses on close quarters combat and capacity, rather than precision. Combat shotguns typically have much shorter barrels than shotguns for hunting and usually, though not always, have magazines of modified design to hold more than the 3 to 5 shots normal with sporting or hunting shotguns. Most combat shotguns have tubular magazines to hold the cartridges, mounted underneath the barrel, identical to those of hunting shotguns except for being longer to hold more ammunition, though some recent designs have detachable box magazines. Because of these, combat shotguns can tend to be more expensive than their sporting counterparts.

Modern Combat Shotguns

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Riot Resolver	12 Gauge (5d6/-6)	Int:4	F B	45'	Pump	L	6.9	20	0%	L
Fixed stock and a combat cut smoothbore barrel. Not affected by Error Range from ammunition.										
Acme Patroller	12 Gauge (5d6/-6)	Int:8	F B	55'	Pump	L	8.1	32	0%	L
Fixed stock and a combat cut smoothbore barrel. Not affected by Error Range from ammunition.										

Table 134: Modern Combat Shotguns

Machine Guns

"No matter how many people you kill, using a machine gun in battle is not a war crime because it does not cause unnecessary suffering; it simply performs its job horrifyingly well." —Sebastian Junger

A machine gun is a fully automatic mounted or portable firearm, usually designed to fire rounds in quick succession from an ammunition belt or large-capacity magazine, typically at a rate of several hundred rounds per minute.

Machine guns that used linked ammunition can sometimes equip ammo boxes to hold the rounds. Linked ammunition not in linked ammunition boxes is restricted to 50 rounds per belt.

Modern Light Machine Guns

A light machine gun is a machine gun designed to be employed by an individual soldier, with or without an assistant, as an infantry support weapon. Light machine guns are often used as squad automatic weapons. They often use belts of linked ammunition, instead of loose rounds or magazines.

Modern light machine guns often fire smaller-caliber cartridges than medium machine guns, and are usually lighter and more compact.

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Warrior Light SAW	5.56x45mm (5d4/-5)	Linked Box:5|10|20|30:1	F B O 2T	110'	Auto(F)	L	16.5	114	5%	M&P
Fixed stock, bipod, and one 100 round ammo box. Uses 100, or 200 round ammo boxes.										

Table 135: Modern Light Machine Guns

Modern General Purpose Machine Guns

A general purpose machine gun is a machine gun normally used as a vehicle mounted suppression gun, used for fire suppression through armor and cover, though they can be used as a standalone weapon. General purpose machine guns require the General Purpose Machine Gunner feat in order to be used without a –4 attack penalty. Bipods and tactical slings or patrol slings are often used with general purpose machine guns.

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz.	Wt	Cost	Err	Lic
Acme Warrior Heavy SAW	7.62x51mm (5d6/-6)	Linked	F B O	125'	Auto(F)	H	29.1	122	10%	M&P
Fixed stock, bipod, and one 100 round ammo box. Uses 100 or 150 round ammo boxes.										

Table 136: Modern General Purpose Machine Guns

Grenade Launchers, Rocket Launchers, and Mortars

"A bullet may have your name on it, but a grenade is labeled 'To whom it may concern' " —U.S. Military mantra

A grenade launcher or grenade discharger is a weapon that launches a grenade with more accuracy, higher velocity, and to greater distances than a soldier could throw it by hand. Grenade launchers can either come in the form of standalone weapons (either single-shot or repeating) or attachments mounted under the barrel of a rifle, as well as fire rifle grenades using blanks. Grenade Launchers can only make single shot and potshot attacks.

A rocket launcher is any device that launches a rocket-propelled projectile. All rocket launchers when fired, create a 10' cone directly behind them that deals 4d6 fire damage to anyone standing in it.

A mortar is an indirect fire weapon that fires explosive projectiles known as mortar bombs at low velocities, short ranges, and high-arcing ballistic trajectories.

Modern Stand Alone Grenade Launchers

A stand alone grenade launcher is a grenade launcher that can be used without attaching it to any weapon. Stand alone grenade launchers require the Explosive Weapons Proficiency feat in order to be used without a –4 attack penalty. Grenade Launchers can only make single shot and potshot attacks.

Weapon	Caliber	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Bunker Buster Fixed stock.	40x46mm	Int:1	F B O	60'	Single	L	6.0	45	0%	M&P

Table 137: Modern Standalone Grenade Launchers

Modern Rocket Launchers

A rocket launcher is a weapon that launches a high explosive rocket to destroy hard targets, such as vehicles, buildings, and equipment. Rocket launchers require the Explosive Weapons Proficiency feat in order to be used without a −4 attack penalty.
All modern rocket launchers come standard with one missile or rocket.

Weapon	Damage	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Acme Tank Remover	30d12 Concussion	Int:1 Unreloadable	None	220'	Single	L	9.3	114	0%	M&P
This weapon has a splash damage of 30'										

Table 138: Modern Rocket Launchers

Modern Rifle Grenades

A rifle grenade is a grenade that is attached to a rifle grenade adapter on a rifle, and is fired using a blank round. It can not be used without being attached, and is reloaded onto the barrel of the adapter prior to firing. While attached, if the user fires any other ammunition through the rifle besides a blank round while the rifle grenade is attached, the grenade immediately explodes, damaging all objects and creatures within it's blast radius. Rifle grenades require the Exotic Firearms Proficiency feat in order to be used without a −4 attack penalty. A rifle grenade can be used on any rifle with a rifle grenade adapter. All listed rifle grenades have a blast radius of 15', a wounding radius of 30', and immediately explode upon striking any surface when fired. Any target caught in the blast must make a Fortitude Saving Throw [TN20] or be knocked prone. Rifle grenades are limited to 5 range increments.

Weapon	Damage	Rng	RoF	Sz	Wt	Cost	Err	Lic
Fragmentation Rifle Grenade	5d6 Slashing	50'	Single	L	1.5	4	0%	M&P
Concussion Rifle Grenade	4d6 Concussion	50'	Single	L	1.5	4	0%	M&P
Anti-Armor Rifle Grenade	6d6 Concussion/Fire	50'	Single	L	1.5	6	0%	M&P
Ignores up to 10 points of hardness.								

Table 139: Modern Rifle Grenades

Black Powder Firearms

"Don't fire until you see the whites of their eyes." —Common order, popularized by the Battle of Bunker Hill, 1775

Black powder firearms are firearms that instead of using preassembled cartridges load the bullet and gunpowder in the gun's barrel or cylinder.

The benefits to black powder are as long as a character has access to the bare materials, they can still use the weapon, and the weapon can have individualized powder charges per barrel or cylinder. The downsides are that black powder firearms are much slower to reload, can become unreliable if rained on or otherwise exposed to the weather, and if the charge isn't loaded correctly, can cause the shot to fizzle, or even explode in the user's face. Because of how black powder weapons work, the error range determines if the weapon goes off when it is fired.

Because the powder has to be loaded manually, a black powder firearm can be loaded in one of three configurations:

- **Light Load** Grants –1 damage die but reduces the Error Range by 10%,
- **Normal Load** Grants no bonus or penalties
- **Heavy Load** Grants +1 damage die, but increases the weapon's Error Range by 15%. If a black powder weapon is loaded heavily, and fails its Error Range check, it explodes and causes 1d8 slashing damage to its user, as well as destroying the firearm.

One pound of powder provides 30 normal loads. A light load counts as half a normal load and a heavy load counts as two normal loads. The Black Powder Firearms Proficiency feat is required to load black powder firearms, and use them without a –4 attack penalty, however, any character with the Personal Firearms Proficiency can use a Black Powder weapon without penalty, but cannot reload them. Black powder firearms can fit into standard firearms holsters, so as long as they would fit normally. All black powder firearms come with loading equipment for the specified model of firearm.

Because of their design, black powder firearms can accept Enchantments directly onto the weapon, as well as the ammunition.

All black powder firearms calibers are considered 2nd category for the purpose of gunsmithing, and are restricted to single shot, double shot, single action revolver, double action only revolver, and double action revolver styles of firearm.

Matchlocks

A matchlock musket is a musket that uses a slowly burning match to ignite the charge. The matchlock is first loaded by pouring gunpowder down the barrel, and packing it down in the barrel, followed by a projectile, which is most often a lead ball. The matchlock is then loaded with a piece of slow match, which is a piece of cord that has been treated to burn at a slow, consistent rate, and keep an ember, but not flame up. The hammer is cocked back, and when the trigger is pulled, the hammer flies forward and the match touches the touch hole, igniting the gunpowder and propelling the projectile.

Matchlock Pistol
The Matchlock Pistol is usually used as a sidearm, sporting a 6 to 8 inch barrel. They are mostly suited to close quarters fighting and as last effort weapons.
Loading equipment

Double Barrel Matchlock Pistol
The Double Barrel Matchlock Pistol is usually used as a sidearm, sporting two 6 to 8 inch barrels. They are mostly suited to close quarters fighting and as last effort weapons. This model comes with two shots, as opposed to one, and can perform double tap and doublefire shots, taking any penalties as normal.
Loading equipment

Matchlock Carbine
This is a shortened version of the full sized musket, useful for close quarters battle. It does not have the range as a full sized musket, but it does not suffer as harsh of penalties when fighting adjacent. These muskets can accept a bayonet. When using a matchlock carbine musket against an adjacent opponent, the character takes a –2 penalty on all ranged attacks.
Loading equipment, bayonet lug, permanent fixed stock.

Matchlock Musket
This is the full size matchlock musket, useful for longer range engagements. These muskets can accept a bayonet. When using a matchlock musket stock against an adjacent opponent, the character takes a –4 penalty on all ranged attacks.
Loading equipment, bayonet lug, permanent fixed stock

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Matchlock Pistol	.75 Ball (3d8/-5)	Int:1	F	20'	Single	M	3.0	8	40%	None
Double Barrel Matchlock Pistol	.75 Ball (3d8/-5)	Int:2	F	20'	Single/Double	M	3.0	11	40%	None
Matchlock Carbine	.75 Ball (3d8/-5)	Int:1	F	40'	Single	L	8.0	10	40%	None
Matchlock Musket	.75 Ball (3d8/-5)	Int:1	F	55'	Single	L	10.0	13	40%	None

Table 140: Black Powder Firearms, Matchlocks

Flintlocks

Flintlocks are very similar to matchlocks, but instead of a slowly burning match that is put to the touch hole, flintlocks instead have a piece of flint that, when the trigger is pulled, flies forward and scrapes against the frizzen, causing sparks to shower in the pan below, which is filled with gunpowder. The pan then ignites the charge, and the firearm fires. The entire loading process is nearly the same, except for a little gun powder is added to the pan so that it can ignite the charge. Because of how the charge is ignited, they are significantly more reliable than matchlocks, and can be used in wet or damp environments.

Flintlocks come in both rifled and musket varieties, as well as a host of other odd types of configurations.

Muskets vs. Rifles

A musket is a smoothbore black powder firearm, very similar to a modern day shotgun. These are inaccurate at longer distances, but cheaper to make, and easier to produce. A rifle has rifling, or grooves cut into the inside of the barrel that the bullet engages, causing the bullet to spin as it travels down the barrel. This increases accuracy, but cutting rifling into the barrel increases the cost. Also, due to the way rifling is designed, a smaller caliber has to be used in order to gain the most out of the rifling.

Flintlock Pistol
The Flintlock Pistol is usually used as a sidearm, sporting a 6 to 8 inch barrel. They are mostly suited to close quarters fighting and as last effort weapons.
Loading equipment

Double Barrel Flintlock Pistol
The Double Barrel Flintlock Pistol is usually used as a sidearm, sporting two 6 to 8 inch barrels. They are mostly suited to close quarters fighting and as last effort weapons. This model comes with two shots, as opposed to one, and can perform double tap and doublefire shots, taking any penalties as normal.
Loading equipment

Flintlock Pistol, Rifled
This is an upgrade of the flintlock pistol, adding rifling to the barrel to increase its accuracy and effective range.
Loading equipment

Double Barrel Flintlock Pistol, Rifled
This is an upgrade of the double barrel flintlock pistol, adding rifling to the barrel to increase its accuracy and effective range. This model comes with two shots, as opposed to one, and can perform double tap and doublefire shots, taking any penalties as normal.
Loading equipment

Blunderbuss
A muzzleloading firearm with a short, wide barrel that flares out at the muzzle. It fires shot, functioning similarly to a modern shotgun. Because it has no actual caliber it can be filled with any Fine sized object of sufficient hardness such as pebbles, lead shot, marbles made of clay, glass, or steel, or coins. The blunderbuss pistol can hold up to six objects and a blunderbuss may hold up to twelve objects before being too full to function. Each object grants the attack 1d4 ballistic damage. Functions like a shotgun for range increment, where the negative -2 applies to both damage and attack rolls.
A blunderbuss comes with a permanent fixed stock.

Flintlock Carbine
This is a shortened version of the full sized musket, useful for close quarters battle. It does not have the range of a full sized musket, but it does not suffer as harsh of penalties when fighting adjacent foes. These muskets can accept a bayonet. When using a matchlock carbine musket stock against an adjacent opponent, the character takes a –2 penalty on all ranged attacks.
Bayonet lug, permanent fixed stock

Flintlock Carbine, Rifled
This is a shortened version of the full sized musket, useful for close quarters battle. It has a rifled barrel, instead of a smoothbore barrel. It does not have the range of a full sized musket, but it does not suffer as harsh of penalties when fighting adjacent foes. These muskets can accept a bayonet. When using a matchlock carbine musket stock against an adjacent opponent, the character takes a –2 penalty on all ranged attacks.
Loading equipment, bayonet lug, permanent fixed stock

Flintlock Musket
This is the full size flintlock musket, useful for longer range engagements. These muskets can accept a bayonet. When using a flintlock musket against an adjacent opponent, the character takes a –4 penalty on all ranged attacks.
Loading equipment, bayonet lug, permanent fixed stock

Flintlock Musket, Rifled
This is the full size flintlock musket, useful for longer range engagements, complete with an upgraded, rifled barrel. These muskets can accept a bayonet. When using a flintlock musket against an adjacent opponent, the character takes a –4 penalty on all ranged attacks.
Loading equipment, bayonet lug, permanent fixed stock

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Flintlock Pistol	.75 Ball (3d8/-5)	Int:1	F	20'	Single	M	3.0	11	20%	None
Double Barrel Flintlock Pistol	.75 Ball (3d8/-5)	Int:2	F	20'	Single/Double	M	3.0	16	20%	None
Flintlock Pistol, Rifled	.58 Minié Ball (2d10/-4)	Int:1	F	30'	Single	M	3.0	13	20%	None
Double Barrel Flintlock Pistol, Rifled	.58 Minié Ball (2d10/-4)	Int:2	F	30'	Single/Double	M	3.0	18	20%	None
Flintlock Carbine	.75 Ball (3d8/-5)	Int:1	F	40'	Single	L	8.0	16	20%	None
Flintlock Carbine, Rifled	.58 Minié Ball (2d10/-4)	Int:1	F	55'	Single	L	8.0	21	20%	None
Flintlock Musket	.75 Ball (3d8/-5)	Int:1	F	55'	Single	L	10.0	18	20%	None
Flintlock Musket, Rifled	.58 Minié Ball (2d10/-4)	Int:1	F	75'	Single	L	10.0	26	20%	None
Blunderbuss Pistol	See text	Int:1	F	10'	Single	M	3.3	12	20%	None
Blunderbuss	See text	Int:1	F	20'	Single	L	10.8	22	20%	None

Table 141: Black Powder Firearms, Flintlocks

Percussion Caps

A percussion cap breaks free of the issue of flintlocks and matchlocks with using a hammer and a percussion cap that contains a touch explosive. When the trigger is pulled the hammer flies forward, striking the percussion cap, that sends the explosion through a channel that ignites the gunpowder charge, and the firearm fires. The entire loading process is nearly the same, except for a cap is added to the nipple. Because of how the charge is ignited, they are significantly more reliable than both matchlocks and flintlocks, and have a lower failure rate for firing. The type of firearm is noted in the description of the firearm.

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Colt 1849 Pocket Backup Handgun.	.31 Ball (2d3/+0)	Cyl:5	F	20'	SA	S	2.4	19	10%	None
Colt 1851 Navy +1 Mastercraft. Full Sized Handgun.	.36 Ball (2d4/-1)	Cyl:6	F	25'	SA	M	2.6	22	10%	None
Colt 1860 Army +1 Mastercraft. Full Sized Handgun.	.44 Ball (2d6/-2)	Cyl:6	F	25'	SA	M	2.7	26	10%	None
Enfield 1853 Fixed stock and a bayonet lug. Battle Rifle.	.58 Minié Ball (2d10/-4)	Int:1	F	75'	Single	L	9.5	40	10%	None

Table 142: Black Powder Firearms, Percussion Cap

Modern Muzzleloaders

This is the modern recreation of the percussion cap, trading in the antiquated calibers for something with a more modern payload and a more reliable ignition, as well as the ability to use propellant pellets. They function identically to percussion cap firearms, but have more modern catchings such as optics rails, tactical rails, and a wider selection of projectile types. The type of firearm is noted in the description of the firearm.

Modern Muzzleloaders can take advantage of feats that enhance the usage of weapons, but are still considered black powder firearms for the purpose of reloading.

Weapon	Caliber (Dam/Rec)	Magazine	Upg	Rng	RoF	Sz	Wt	Cost	Err	Lic
Single Barrel Muzzleloading Carbine Fixed stock. Carbine Rifle.	.50 Cal (4d10+3/-8)	Int:1	F B	55'	Single	L	5.4	10	0%	None
Single Barrel Muzzleloading Rifle Fixed stock. Battle rifle.	.50 Cal (4d10+3/-8)	Int:1	F B	85'	Single	L	6.3	13	0%	None
Double Barrel Muzzleloading Carbine Fixed stock. Carbine Rifle.	.50 Cal (4d10+3/-8)	Int:2	F B	55'	Single/Double	L	6.2	18	0%	None
Double Barrel Muzzleloading Rifle Fixed stock. Battle rifle.	.50 Cal (4d10+3/-8)	Int:2	F B	85'	Single/Double	L	7.1	24	0%	None
Single Barrel Muzzleloading Pistol Target Handgun	.50 Cal (4d10+3/-8)	Int:1	F B	35'	Single	M	3.1	14	0%	None
Double Barrel Muzzleloading Pistol Target Handgun	.50 Cal (4d10+3/-8)	Int:2	F B	35'	Single/Double	M	4.5	19	0%	None

Table 143: Black Powder Firearms, Modern Muzzleloader

Non-ballistic Ranged Weapons

Ranged weapons that are not firearms include such diverse objects as crossbows, tasers, and pepper spray. The feat that provides proficiency with these weapons varies from weapon to weapon.

Bows and Crossbows

Bows are split into two categories: Recurve Bows and Compound Bows. Both bows and crossbows do piercing damage. Bows and crossbows require the Archaic Weapons Proficiency (Bow) feat in order to be used without a –4 attack penalty. Bows are also classified by the amount of strength it takes to pull one back. Bows have a minimum STR modifier in order to be used properly. Bows and crossbows have the ability to accept up to 4 Frame upgrades. Arrows and bolts can be embedded.

Recurve Bow A bow that has tips that curve away from the archer when the bow is strung. By definition, the difference between recurve and other bows is that the string touches a section of the limb when the bow is strung. A recurve bow stores more energy and delivers energy more efficiently than an equivalent straight-limbed bow, giving a greater amount of energy and hence speed to the arrow. If the character does not have the required modifier for a recurve bow, they can only make Light Pull attacks with that bow. A character adds their POW bonus, up to a maximum of +6, to all damage rolls when using recurve bows.

Compound Bow A bow that uses a levering system of cables and pulleys to bend its limbs. Compound bows are used for hunting, Olympic archery, and general target practice. If the character does not have the required modifier for a compound bow, they can not use this bow at all.

Crossbow Still used by hunters for silent kills, not much has changed in hundreds of years. A crossbow has an internal magazine of 1, and loading a crossbow costs 2 Combat Points and provokes AoO.

Flamethrower and Flamer

A flamethrower consists of a pressurized backpack containing fuel, which is connected to a tube with a nozzle. It shoots a 5-foot wide, 60-foot long line of flame that deals 3d6 points of fire damage to all creatures and objects in its path. No attack roll is necessary. Any creature caught in the line of flame can make a Reflex Saving Throw [TN15] to take half damage. Creatures with cover get a bonus on their Reflex Saving Throw. A flamethrower's backpack has hardness 5 and 20 HP. When worn, the backpack has a DEF equal to 9 + the wearer's AGI modifier. A backpack reduced to 0 HP ruptures and explodes, dealing 8d6 points of fire damage to the wearer (no Saving Throw allowed) and 3d6 points of fire damage to creatures and objects within a 10' burst radius (Reflex Saving Throw [TN15] for half damage).

A flamer is a hand-held version of the flamethrower, putting the fuel in a canister. It shoots a 5-foot wide, 25-foot long line of flame that deals 3d3 points of fire damage to all creatures and objects in its path. No attack roll is necessary. Any creature caught in the line of flame can make a Reflex Saving Throw [TN15] to take half damage. Creatures with cover get a bonus on their Reflex Saving Throw.

Any creature or flammable object that takes damage from a flamethrower catches on fire immediately, taking 2d6 points of fire damage each subsequent round until the flames are extinguished. A fire engulfing a single creature or object can be doused or smothered for 12 Combat Points. They can not attempt a Reflex Saving Throw to extinguish themselves. A flamethrower can fire 20 times and a flamer can fire 8 times before the fuel supply is depleted and cannot double-tap, double fire, or perform any other special firing modes. The Exotic Firearms Proficiency (Flamethrowers) feat is required to use flamethrower or flamer.

Chemical Irritants

A chemical irritant is a spray or fog that can temporarily blind and incapacitate target. It comes in various forms such as pepper spray and bear fogger. Chemical irritants are simple weapons and require no feats to use. To use pepper spray, make a ranged touch attack against the target. The target must make a Fortitude Saving Throw [TN15] or be blinded for 1d4 rounds. Pepper spray is limited to 5 range increments. To use bear fogger, the user selects a 10'×10' area within the range increment, that lasts for 1d4 rounds. Any targets caught in the fog must make a Fortitude Saving Throw [TN9], or be blinded for 2d4 rounds. Bear fogger is limited to 1 range increment. A gas mask or a MOPP suit renders the target immune to the effects and a wet cloth held over the eyes, nose, and mouth provides a +2 bonus to the Fortitude Saving Throw.

Spear Gun

A spear gun is a gun that uses rubber tubing to fire a thin metal spear at a target. When used underwater, the spear gun's range triples. Spear guns require the Archaic Weapons Proficiency (Bows) feat in order to be used without a –4 attack penalty.

Taser

A taser is a weapon that uses springs or compressed air to fire a pair of darts at a target. On impact, the darts release a powerful electrical current. Tasers are simple weapons and require no feats to use. On a successful hit with a X26, X2, X3, and C3, the darts deal electricity damage and the target must make a Fortitude Saving Throw [TN15] or be paralyzed for 1d6 rounds. On a successful hit with a Taser 7, the darts deal electricity damage and the target must make a Fortitude Saving Throw [TN20] or be paralyzed for 1d3 rounds. Reloading a taser costs 3 Combat Points that provokes AoO. All tasers come with 3 extra cartridges. Tasers can also be used as stun gun by removing the cartridge, which cost 1 CP. When using them in this manner, they are considered simple melee weapons, and have the same damage and effect as if it were used as a ranged weapon. Tasers cannot provoke a critical strike. The X26 and the X2 taser have a single tactical upgrade slot that can be outfitted with multiple ranged upgrades, and the Taser 7 has a built in standard laser sight and standard tactical flashlight. For the purpose of non-proficiency feats, tasers are considered handguns with detachable magazines.

Weapon	Damage	Critical	Rng	RoF	Sz	Wt	Cost	STR Mod	Restr
Light Recurve Bow	1d4+2	16-18	25'	Single	L	3.0	4	–1	None
Light Compound Bow	1d4+2	16-18	55'	Single	L	3.0	9	–3	None
Medium Recurve Bow	2d4+2	16-18	30'	Single	L	3.0	7	+0	None
Medium Compound Bow	2d4+2	16-18	60'	Single	L	3.0	13	–2	None
Heavy Recurve Bow	3d4+2	16-18	35'	Single	L	3.0	9	+1	None
Heavy Compound Bow	3d4+2	16-18	70'	Single	L	3.0	16	–1	None
Super Heavy Recurve Bow	4d4+3	16-18	40'	Single	L	3.0	11	+2	None
Super-Heavy Compound Bow	4d4+3	16-18	80'	Single	L	3.0	25	+0	None
Dreadnought Recurve Bow	5d4+4	16-18	45'	Single	L	4.0	13	+4	None
Dreadnought Compound Bow	5d4+4	16-18	90'	Single	L	4.0	30	+2	None
Juggernaut Recurve Bow	6d4+4	16-18	50'	Single	L	5.0	15	+6	None
Juggernaut Compound Bow	6d4+4	16-18	100'	Single	L	5.0	40	+3	None

Table 144: Equipment, Bows

Weapon	Damage	Critical	Rng	RoF	Upg	Sz	Wt	Cost	Restr
Light	5d3	14-18	25'	Single	F O	M	4.0	10	None
Medium	7d3	15-18	35'	Single	F O	L	5.0	14	None
Heavy	9d3	15-18	50'	Single	F O	L	7.0	16	None
Super-Heavy	11d3	16-18	60'	Single	F O	L	8.0	20	None

Table 145: Equipment, Crossbows

Tranquilizer Gun

A tranquilizer gun is an airgun that fires a hypodermic needle-like dart, that injects a target with one dose of tranquilizer agent. Tranquilizer guns do no damage on their own, but rather the damage is derived from the poison in the dart. A tranquilizer dart can house one dose of any solid or liquid poison. A tranquilizer gun comes with 10 empty darts. Tranquilizer guns are simple weapons and require no feats to use. Tranquilizer guns can not provoke critical strikes. Reloading a tranquilizer gun costs 9 Combat Points and provokes AoO. Tranquilizer guns come in both handgun, and rifle configurations. The rifle configuration has a fixed stock and an optics mount, while the handgun configuration has an optics mount. For the purpose of non-proficiency feats, tranquilizer handguns are considered handguns with detachable magazines and tranquilizer rifles are considered designated marksman rifles."

Paintball Marker

A paintball marker is a marker that is used to mark targets from a long range. Its original use was to mark trees or wandering cattle. They are also used for paintball games and by law enforcement for non-lethal short range engagement. Paintball markers require CO_2 or NO_2 tanks to fire, which is calculated into the price of the paintball ammunition. Paintball marker's damage is determined by the ammunition it projects. A paintball marker is a simple weapon and requires no proficiency to use without penalty and paintball markers cannot provoke a critical strike. Reloading a paintball marker costs 4 Combat Points and provokes AoO. Unlike most non-ballistic weapons, a paintball marker can be used to make double-tap attacks at the normal Combat Point cost for a firearm. For the purpose of non-proficiency feats, the Tippman 98 Custom is considered a carbine rifle and the Tippman TPX is considered a handgun with detachable magazine.

Less Lethal Launcher

A less lethal launcher is a dedicated launcher that fires cartridges primarily made to disable or mark targets. It is primarily used by law enforcement for non-lethal medium and long range engagement. Less lethal launchers require CO_2 or NO_2 tanks to fire, which is calculated into the price of the ammunition. A Less lethal launcher's damage is determined by the ammunition it is firing. A less lethal launchers is a simple weapon and requires no proficiency to use without penalty and cannot provoke a critical strike. Reloading a less lethal launchers costs 4 Combat Points and provokes AoO. Unlike most non-ballistic weapons, a less lethal launcher can be used to make double-tap attacks at the normal Combat Point cost for a firearm. For the purpose of non-proficiency feats, the FN303 is considered a carbine rifle and the FN303P is considered a handgun with detachable magazine.

Slingshot

A slingshot is a small hand powered weapon that uses rubber bands or tubing to fling a small projectile. The classic form consists of a Y-shaped frame held in the off hand, with two rubber strips attached to the uprights. The other ends of the strips lead back to a pocket which holds the projectile. The pocket is grasped by the off-hand and drawn back to the desired extent to provide power for the projectile. Slingshots are simple weapons and require no feats to use. They are limited to three range increments. Ammunition for slings usually encompasses rocks, small marbles, lead and steel balls and any generally any Fine sized object. Slingshots can fire lead ball ammunition, as well as all paintball ammunition. The damage listed is for lead balls and rocks. When calculating damage, a character adds 1½ times their POW modifier. Slingshots must be used with two hands.

Weapon	Damage	Critical	Damage Type	Rng	RoF	Magazine	Sz	Wt	Cost	Restr
Flamer	3d3	—	Fire	25' max	Semi	Int:8	L	5.0	22	L
Flamethrower	3d6	—	Fire	60' max	Semi	Int:20	L	50.0	35	L
Chemical Irritants, Pepper Spray	Special	—	Special	5'	Single	Int:10	T	0.5	1	None
Chemical Irritants, Bear Fogger	Special	—	Special	5'	Single	Int:5	S	0.8	4	None
Spear Gun	1d10	16-18	Piercing	25'	Single	Int:1	L	5.0	4	None
C2 Taser	1d4	—	Electricity	5'	Single	Int:1	S	1.1	20	None
X26 Taser	1d6	—	Electricity	10'	Single	Int:1	S	1.1	18	L
X2 Taser	1d6	—	Electricity	10'	Single	Int:2	S	1.3	25	L
X3 Taser	1d6	—	Electricity	10'	Single	Int:3	S	1.5	30	L
Taser 7	1d6	—	Electricity	5'	Single	Int:1	S	1.2	35	L
Tranquilizer Gun, Handgun	—	—	Special	25'	Single	Int:1	S	2.0	12	None
Tranquilizer Gun, Rifle	—	—	Special	45'	Single	Int:1	L	5.5	25	None
Tippman 98 Custom	.68PB	—	Special	40'	Semi	Int:200	L	3.0	20	None
Tippman TPX	.68PB	—	Special	20'	Semi	Box:7:1	S	1.1	15	None
FN303	18mm LL	—	Special	65'	Semi	Box:15:1	L	3.0	37	None
FN303P	18mm LL	—	Special	35'	Semi	Box:7:1	S	1.1	24	None
Slingshot	1d2	16-18	Bludgeoning	25'	Single	Int:1	S	1.0	1	None

Table 146: Equipment, Non-Ballistic Ranged Weapons

Thrown Weapons

These weapons are thrown by the user, dealing damage without the use of an outside power source.

Thrown Weapons as Melee Weapons

It's not uncommon for a character to need to use a thrown weapon as a melee weapon. Use the below statistics when using a thrown weapon in a melee role.

- **Brick** Treat as if it were a melee weapon without any range.
- **Javelin** Treat as an improvised short spear.
- **Throwing Axe** Treat as an improvised hand axe.
- **Throwing Knives/Stars** Treat as an improvised escape knife.

All weapons not listed are not able to be used as melee weapons.

Bolas

Bolas are throwing weapons made of weights on the ends of interconnected cords designed to capture animals by entangling their legs. Improvised versions of this weapon would include an extension cord tied up with weights at the end. Bolas can be used to make a ranged trip attempt. You cannot be tripped during your own trip attempt when using them. A bola is an exotic weapon and requires an Exotic Melee Weapons Proficiency feat to be used without a –4 attack penalty.

Boomerangs

A thrown weapon, typically constructed as a flat aerofoil, that is designed to spin about an axis perpendicular to the direction of its flight. Boomerangs are unique in throwing weapons as they're able to curve around objects and still strike their target. A boomerang can only curve in one direction when it is thrown, and for every 5' it curves from the original starting axis, it must move 10'. This is likewise for throwing a boomerang at distance.

Example: *Curving a boomerang 15' from the axis would require 30' of forward travel. Throwing a boomerang 40' away would require it to curve out 20'.*

The area for the boomerang to curve must be clear of obstructions, otherwise it will strike the first object that it hits and stop there. A boomerang is an exotic weapon and thus requires an Exotic Melee Weapons Proficiency feat to use without penalty. A boomerang can be thrown out to a maximum of three range increments.

Brick

Any blunt improvised weapon that is fist sized and primarily thrown. These weapons are special in that they don't incur the improvised weapon penalty when thrown. Examples of this weapon are numerous, including rocks, paperweights, actual bricks, staplers, thrown bottles, or any similar object.

Javelin

A light, flexible spear built for throwing that can also be used in melee. Since it isn't designed for it, characters using it in this manner are always considered non-proficient and take a –4 penalty on their melee attack rolls. Javelins can be embedded.

Throwing Axe

A throwing axe is an axe that has been balanced to be hurled through the air at a target. Classic examples of these include the tomahawk. Throwing axes require the Exotic Melee Weapons Proficiency feat in order to be used without a –4 attack penalty. Throwing axes can be embedded.

Throwing Knives/Stars

These sleek and fast throwing stars and knives are omnipresent in classic martial arts movies and nearly synonymous with ninja. Throwing stars and throwing knives require the Exotic Melee Weapons Proficiency feat in order to be used without a –4 attack penalty. Throwing knives and stars can be embedded.

Giant Throwing Star

This is a scaled up version of a throwing star, multiplying the range and damage of a thrown weapon. Giant throwing stars require the Exotic Melee Weapons Proficiency feat in order to be used without a –4 attack penalty. Giant throwing stars can be embedded.

Weapon	Damage	Critical	Damage Type	Rng.	RoF	Sz	Wt	Cost	Restr
Bolas	1d4	16-18	Bludgeoning	10'	Single	M	1.5	6	None
Boomerang, Light	1d6	16-18	Bludgeoning	30'	Single	S	1.0	3	None
Boomerang, Medium	2d4	16-18	Bludgeoning	15'	Single	M	1.1	5	None
Boomerang, Heavy	3d4	16-18	Bludgeoning	10'	Single	M	1.5	8	None
Brick (4)	1d4	16-18	Bludgeoning	10'	Single	S	1.0	1	None
Javelin	2d6	16-18	Piercing	30'	Single	M	2.3	3	None
Throwing Axe	1d6+2	16-18	Slashing	10'	Single	S	0.6	2	None
Throwing Knives/Stars	1d3+2	16-18	Piercing	10'	Single	T	0.5	1	None
Giant Throwing Star	3d4+2	16-18	Slashing	20'	Single	M	1.0	3	None

Table 147: Equipment, Thrown Weapons

Explosives

Explosives and Splash Weapons

These weapons explode, dealing damage to creatures or objects within an area. Explosives can be thrown or set off in place, depending on the type of explosive device. All explosives must be detonated. Some, such as grenades, include built-in detonators. Others require timers or other devices to set them off.

Blast Radius

The blast radius shows the range of squares that an explosive destroys. A 5' blast radius affects a single 5' square, while a 10' blast radius affects every adjacent square to where the explosives were planted or detonated.

Wounding Radius for Explosives

Explosives often reach out past their original blast radius and are still effective. This is called the wounding radius, and is 5' outside of the blast radius per 5'. Any target caught in the wounding radius must make a Reflex Saving Throw [TN15 (+1 per 10' of blast radius)] or take full damage. If the character passes the Reflex Saving Throw, they take half of the damage of the explosive. Only explosives that cause damage can have a wounding radius. Any target caught in the wounding radius of an explosive that can knock a creature prone must make a Fortitude Saving Throw [Original Saving Throw of the explosive to be knocked prone] or be knocked prone.

Explosives and Extremity damage

Unlike aimed weapons, explosives generally hit multiple areas of a character. If a character is caught in an explosive blast, the GM rolls a d% to determine the locations the character is hit. The d% is rolled for every damage die that is given by the explosive to a maximum of 10. Regardless of the rolls, the character is always hit in the chest. Do not reroll if the character is hit in the same place more than once.

Location	D% roll
Chest	1-10
Left Arm and Hand	11-32
Right Arm and Hand	33-54
Left Leg and Foot	55-76
Right Leg and Foot	77-98
Head	99-100

Table 148: Explosive Extremity Damage Hit Location

When calculating Extremity damage, treat the damage from the explosive as if it hit the determined locations of a character at the exact same time. The damage amount is not multiplied by the amount of locations hit. If any hit location is unprotected by armor, calculate bleed damage based on the full damage. If the character is wearing any armor that protects against the damage, apply its DR to the full damage as normal before applying it to hit points.

Cooking off Grenades and Throwing Grenades Back

Grenades normally take 1 turn to detonate after they are thrown, but a character can cook off a grenade instead. A character can spend the Combat Points it would take to throw a grenade to instead hold it at the ready, throwing it at the very beginning of their next turn. Regardless of if they throw the grenade or not, it still goes off where it is. A character can not perform any other actions but movement while they are cooking off a grenade.
It is also possible to throw a grenade back, but as it is a live, and very dangerous object, there is a possibliy the person throwing the grenade back can fumble it and drop it. If a character attempts to throw back a grenade that is already live, they must make a Reflex Saving Throw [TN17]. Failure means that the grenade is dropped at their feet. This is only triggered if the user is attempting to throw the grenade by means of a thrown weapon attack; dropping the grenade cost 0 CP and has no reflex save.

Grenades

Grenades come in different types, usually triggered by pulling the pin and releasing the spoon, which starts the fuse. Pulling the pin on a grenade costs no Combat Points. All grenades take a full round in order to detonate unless noted otherwise.

Concussion These grenades rely on their explosive power to inflict injury. Any target caught in the blast must make a Fortitude Saving Throw [TN17] or be knocked prone.

Fragmentation This is the most common style of hand grenade. It uses a small explosive charge to fling shards of metal in all directions. Any target caught in the blast must make a Fortitude Saving Throw [TN15] or be knocked prone.

Impact This grenade is a fragmentation grenade equipped with an impact fuse. The grenade detonates on impact of any hard surface. Any target caught in the blast must make a Fortitude Saving Throw [TN17] or be knocked prone.

Defensive These grenades are used for defensive purposes, as they have a rather large blast radius for grenades. They are more suited to making traps than they are for being thrown. Any target caught in the blast must make a Fortitude Saving Throw [TN15] or be knocked prone.

Smoke These hand grenades create smoke to signal or to conceal. When thrown a smoke grenade has an effective burst radius of 15'. On the following round it fills all squares within 20', and on the third round it fills all squares within 25'. The smoke obscures all sight, including night vision goggles. Anyone within the area has total concealment. The smoke disperses after 10 rounds. Smoke grenades are available in several colors, including white, red, yellow, green, blue, orange, and purple.

Stun Also known as flashbangs, these grenades create a loud flash and bang when they are released. The grenade detonates on impact of any hard surface. Any target caught in the blast must

make a Will Saving Throw [TN16] or be blinded for 1d6 rounds and a Fortitude Saving Throw [TN16] to avoid being deafened for 1d6 rounds.

Sticky These grenades stick to whatever they are thrown at, making them impossible to remove. The grenade has an outer metal casting that, when the spoon is released, reveals a glass outer casing. Behind that casing is a layer of industrial strenght glue, with a high explosive center that has been impregnated with small steel ball bearings. When the grenade strikes any hard surface, the grenade sticks to the surface struck, and can not be removed. Any target caught in the blast must make a Fortitude Saving Throw [TN15] or be knocked prone.

Sting These hand grenades are based on the design of the fragmentation grenade but instead of using a metal casing to produce shrapnel, it has a hard rubber shell and small rubber balls. Any target caught in the blast must make a Will Saving Throw [TN11] and a Fortitude Saving Throw [TN13]. If the character fails either Saving Throw, they are stunned for 1d3 rounds.

Tear Gas These hand grenades are used to disperse crowds and smoke out hostage takers. When the grenade is thrown, a tear gas grenade has a blast radius of 15'. On the following round it fills all squares within 20', and on the third round it fills all squares within 25'. Any target caught in the cloud of tear gas must make a Fortitude Saving Throw every round they spend in the tear gas [TN15 + 1 per round staying in the gas] or be blinded and stunned for 2d4 rounds. A gas mask or a MOPP suit renders the target immune to the effects, and a wet cloth held over the eyes, nose, and mouth provides a +2 to the Fortitude Saving Throw. The tear gas disperses after 10 rounds

Thermite This grenade has no blasting charge or explosive capability. It is used to destroy rugged equipment, often reducing it to useless slag with its intense heat. It burns in a single 5' square.

White Phosphorus This grenade employs a small explosive charge to disperse burning phosphorus particles in all directions. They can be devastatingly effective against people with a gruesome tendency to cling to human flesh. Any target that takes damage from a white phosphorus grenade is dealt an additional 4d6 Fire damage in the following round and risks catching on fire.

Anti-Armor This grenade employs a shaped charge in order to defeat armor. It detonates on contact with any hard surface and ignores up to 10 points of hardness.

Pipe Bomb This homemade device is usually assembled with a quantity of black powder and metal fragments inside a metal pipe. Pipe bombs can be extremely dangerous to build. Making a pipe bomb is a Demolitions check [TN15].

Propane Bomb This is a homemade explosive device consisting of a widely available propane fuel bottle duct-taped to a highway flare. Making a propane bomb is a Demolitions check [TN12].

Dynamite Stick This is a stick of dynamite with a fuse stuck in it. It requires a source of fire to be lit before being used, such as a lighter or a flare. Making a dynamite stick is a Demolitions check [TN10].

Molotov Cocktail This homemade explosive device is common on the street and consists of a glass bottle filled with a flammable liquid (usually gasoline) and an oily rag for a wick. It shatters when it hits a hard surface, spraying flaming gasoline over the immediate area and leaving a burning fire for 1d3+1 rounds in it's burst radius. Anyone hit directly with a Molotov cocktail takes an additional 1d6 slashing damage, an additional 1d6 fire damage, and catches fire immediately. Any creature that steps into a square immediately takes the weapon's fire damage, per square they step through. Making Molotov cocktails is a Demolitions check [TN10], but can be attempted untrained with an Intelligence Check [TN10].

Breakable Beaker A breakable beaker is a breakable glass beaker and capped off with a rubber stopper or wood cork that can be filled with any volatile liquid. The damage is based on what kind of liquid is put into the beaker. It shatters when it hits a hard surface, spraying volatile chemicals over the burst radius. A beaker can hold 2 units of a liquid, must be full to cause any damage.

Pre-made Charges

Pre-made charges are complete products with a detonator and explosive material.

Anti-Tank Mine An anti-tank mine is a shaped charge with a pressure detonator set by default to 400 pounds. It is designed to disable armored vehicles by wrecking their treads. Anti-tank mines ignore 20 hardness.

Bounding Mine A bounding mine is an anti-personnel mine that includes a tripwire detonator. When triggered, it springs up 4 feet in the air before exploding and spraying its fragmented contents over the unfortunates who stumbled over it.

Breaching Charge A breaching charge is a shaped charge consisting of 0.5 lb of plastic explosive and an electrical detonator in an adhesive frame. It can ignore up to 10 points of hardness and has a range increment of 10 feet.

Directional Mine A directional mine is a mine that consists of a curved steel backing plate, a layer of plastic explosive, and several hundred ball bearings. Its folding feet are dug into the ground or it can be stood up anywhere and when it goes off—either by remote using its electric blasting cap or by the included tripwire detonator—it sprays the ball bearings in one direction, leaving anyone to its sides or rear unscathed. It fires in a 30' cone.

Fire Jar A Fire jar is essentially the mine version of a molotov cocktail. It is set behind doors or set with trip wires so that when it is tipped on its side, it bursts into flames and ignites a large area with burning gasoline. Anyone caught in the blast risk catching on fire.

Name	Damage	Damage Type	Blast Radius	Wound Radius	Rng	Size	Wt	Cost	Restr
Concussion Grenade	4d6	Concussion	20′	40′	10′	T	1.0	3	M&P
Fragmentation Grenade	5d6	Slashing	15′	30′	10′	T	1.0	2	M&P
Impact Grenade	5d6	Slashing	15′	30′	10′	T	1.0	3	M&P
Defensive Grenade	3d4	Slashing	25′	50′	10′	T	1.0	1	M&P
Smoke Grenade (2)	—	—	Special	—	10′	T	1.0	1	None
Stun Grenade	—	Special	25′	—	10′	T	1.0	4	M&P
Sticky Grenade	4d6	Slashing	10′	20′	10′	T	1.0	4	M&P
Sting Grenade	4d6	Bludgeoning (Non-lethal)	15′	30′	10′	T	1.0	3	R
Tear Gas Grenade	Special	Special	15′	30′	10′	T	1.0	3	M&P
Thermite Grenade	8d6	Fire	—	—	10′	T	1.0	6	M&P
WP Grenade	4d6	Fire	15′	30′	10′	T	1.0	12	M&P
Anti-Armor Grenade	6d6	Concussion/Fire	5′	10′	10′	T	1.5	16	M&P
Pipe Bomb	4d8	Slashing	15′	30′	10′	S	2.0	2	I
Propane Bomb	5d4	Fire	15′	30′	10′	S	2.5	1	I
Dynamite Stick	2d12	Concussion	20′	40′	10′	T	0.3	1	R
Molotov Cocktail (4)	1d6	Fire	10′	—	10′	S	1.0	1	I
Breakable Beaker (6)	See text	See text	10′	—	10′	S	0.5	1	None

Table 149: Equipment, Grenades

Satchel Charge A satchel charge is a canvas bag containing 1.0 lb of plastic explosive and a timed detonator. It has a range increment of 10 feet.

Tannerite Jar Tannerite is a binary mixture of explosives that explodes only upon a violent shock, such as being shot, or an explosive going off near it. Tannerite will only explode when the jar receives 8 points of ballistic or concussive damage in one attack. This is a small 0.5 lb jar filled with premixed Tannerite, and comes in packs of 4.

Shockwave Taser A shockwave taser is an area denial device that works much like a large version of a directional mine. The shockwave is set down and then deployed by a remote attached to the device. When fired, it fires off 12 standard taser cartridges, that strike all targets within a 15′ cone in front of the device. Everyone caught within firing range takes electricity damage and must make a Fortitude Saving Throw [TN15] or be paralyzed for 1d6 rounds. It costs 5 Combat Points to deploy the shockwave taser for use and 5 Combat Points to fire it. Reloading the shockwave taser cost 12 Combat Points.

Detonating ("Det") Cord This flexible explosive consists of PETN (pentaerythritol tetranitrate) encased in flexible ¼" plastic cord. It is commonly used to trigger other explosives, as well as a primary explosive to blow open doors by wrapping it around objects or laying it down on the ground. Det cord can be used to set off explosives. The listing for det cord is for 5 feet worth of cord. Det cord can be rolled out in a straight line and ignited, with the entire line immediately exploding when it is triggered.

Raw Explosive Material

Raw explosives may be used to create a bomb. In order to make a bomb, a detonator and a unit of the raw explosive materials are required. Constructing a bomb requires a Demolitions check. The weight listed is the smallest unit available to be effective. When calculating the increase in blast radius for multiple units, the new larger blast radius takes twice as much material as the smaller blast radius. The damage increase is a single damage die per increase.

> Example: *To increase the blast radius of thermite by 5′ requires an additional 1 lb (1 unit) of thermite. To increase the blast radius an additional 5′ from a 10′ blast radius requires an additional 2 lbs (2 units) of thermite. A 15′ blast radius would cost a total of 4 lbs (4 units) and the damage would be 32d6.*

ANFO (Ammonium Nitrate and Fuel Oil) The most common commercial explosive in use today for large-scale demolitions work such as mining. The explosive of choice for rural terrorists due to the widespread availability of ammonium nitrate in farm fertilizer. ANFO may be mixed in solid or liquid ("ANFO slurry") form.

Black Powder The first commercial explosive. Consists of sulfur, charcoal, and saltpeter in a roughly 12/13/75 mixture. Also includes modern gun powders.

Dynamite Nitroglycerin absorbed into diatomaceous earth (or other porous material such as clay or sawdust) and wrapped in a protective coating.

Nitroglycerin A highly shock-sensitive combination of glycerol with nitric and sulfuric acids. The slightest bump can set it off while in liquid form.

Plastic Explosives A stable and flexible explosive with the consistency of modeling clay. Modern versions are made with a high-yield TNT derivative mixed with wax or other plasticizers, and is most commonly packaged in 0.3, 0.5, and 1.0 lb blocks.

Thermite A mixture of powdered iron oxide and aluminum that burns at over 5,400°F. Technically, an incendiary rather than an explosive.

Name	Damage	Type	Blast Radius	Wound Radius	Sz	Wt	Cost	Restr
Anti-Tank Mine	6d10	Concussion	5'	10'	L	20.0	20	M&P
Bounding Mine	5d4	Slashing	5'	10'	S	8.0	6	M&P
Breaching Charge	3d10	Concussion	5'	10'	S	2.0	4	M&P
Directional Mine	3d12	Slashing	30' Cone	—	S	2.0	6	M&P
Fire Jar	1d6	Fire	10'	20'	S	1.0	1	I
Satchel Charge	7d10	Concussion	5'	10'	M	5.0	15	M&P
Tannerite(4)	3d6	Concussion	10'	20'	T	2.0	1	L
Shockwave Taser	1d8	Electricity	15' Cone	—	M	1.9	38	M&P
Detonating Cord	3d4	Concussion	5'	10'	S	2.0	4	M&P

Table 150: Weapons - Pre-made charges

Tannerite Tannerite is a binary mixture of explosive that explodes only upon a violent shock, such as being shot, or an explosive going off near it. Tannerite will only explode when the container it is in receives 8 points of ballistic or concussive damage in one attack.

TNT (Trinitrotoluene) One of the first stable military explosives. Commonly packaged in 0.3, 0.5, and 1.0 lb blocks.

Detonators

Detonators are used to trigger an explosive device through chemical, mechanical, or electrical means. The type of Detonator can modify the Demolitions TN.

Dual Mode This detonator functions as both a pressure and a tripwire detonator.

Manual This detonator is either a twist knob, a plunger, or a button that can be used to manually set off an explosive. It uses a 50' electrical wire that has to be attached to the explosive to set it off.

Fuse Fuses burn at 1 round per two inches and are marked every two inches for hasty measuring. Underwater fuses are sheathed in plastic. The listed amount is for 5 feet of fuse.

Pressure This detonator is typically used in land mines. It is pre-set to detonate a non-electric blasting cap when subjected to a specific weight. This detonator can also be set to detonate when the set weight is placed on it and removed.

Radio This detonator is triggered by a coded radio signal on a set frequency.

Timer This detonator may be set for up to 60 hours in 1-second increments.

Tripwire This detonator may be attached to up to 3 taut hair-thin wires, each of which can be up to 50' long. It is triggered by any pressure over 2 pounds. This detonator can also be set to detonate when pressure coming from a set weight on the wires is removed.

Movement This detonator is triggered by any movement of the object. Once this detonator is armed, it may not be moved or it risk setting off the explosive. It increases the TN to disarm explosives by 15.

Name	Sz	Wt	Cost	TN	Restr
Dual Mode	S	0.5	5	+15	M&P
Manual	S	0.8	2	+0	M&P
Fuse	T	0.3	1	+0	M&P
Pressure	S	0.5	2	+8	M&P
Radio	T	1.0	4	+10	M&P
Timer	T	0.5	2	+5	M&P
Tripwire	S	1.0	1	+12	M&P
Movement	S	0.1	1	+13	M&P

Table 151: Equipment, Explosive Detonators

Name	Damage	TN	Type	Blast Radius	Wound Radius	Sz	Wt	Cost	Restr
ANFO	5d6	18	Concussion	20'	40'	H	50.0	2	I
Black Powder	1d8	12	Concussion	5'	10'	S	0.5	1	None
Dynamite	4d12	10	Concussion	10'	20'	S	0.5	3	R
Nitroglycerin	6d6	10	Concussion	5'	10'	S	0.3	3	I
Plastic Explosives	3d10	15	Concussion	10'	20'	S	0.3	1	M&P
Thermite	8d6	13	Fire	5'	10'	S	1.0	12	M&P
Tannerite	3d6	19	Concussion	15'	30'	S	4.0	1	L
TNT	3d6	15	Concussion	5'	10'	S	0.3	3	R

Table 152: Equipment, Raw Explosive Material

Weapon Upgrades

When calculating cost as a percentage, use the weapon's original cost. When calculating weight as a percentage, use the weapon's original weight.

Melee Weapon Upgrades

There are 2 locations where an upgrade may be place. The handle and the contact. Each melee weapon can accept up to two upgrades per location. Certain upgrades can only be performed on certain types of weapons.

Composite (Contact/Handle) The weapon is upgraded with non-ferrous materials, which allow a character to slip it through metal detecting devices. It grants a +10 bonus on Stealth checks against metal detectors, but only for the part upgraded.

Custom Handle (Handle) The weapon's hilt or handle is fitted to a mold of the purchaser's hand, granting them a +1 bonus with all attack rolls made with the weapon. The purchaser can also have the weapon's grip enlarged or reduced, allowing the weapon to be considered one size larger or smaller when using the weapon, but not concealing or having the weapon otherwise presented. This does not resize the weapon's size for any other aspect where weapon size may be a factor. Anyone else who tries to use the weapon suffers a –2 penalty to their attack rolls.

Concealed (Contact) This upgrade disguises the weapon as an everyday, inconspicuous object, granting a +10 bonus to Stealth checks to hide the weapon. Only weapons of Medium or smaller size may use this upgrade.

Detailing (Contact/Handle) Gives the weapon an engraved or precious metal inlay, granting its wielder a +2 equipment bonus with Presence checks while the target has line of sight to it. This upgrade also increases the weapon's worth by 75%. The weapon loses this quality if it suffers any damage, though it may be restored with a successful Craft (Structural) repair check.

Practice Weapon (Contact) The weapon's contact is replaced with a wooden, softened, or blunted version that inflicts non-lethal bludgeoning damage equal to the weapon's standard damage.

Personalized Weapon (See Text) This upgrade completely rebuilds the weapon from the ground up, personalizing it to a specific person. The upgrade costs 500% the cost of the weapon plus 2 WP per Craft (Structural) TN the weapon costs to make. The weapon has a +4 attack bonus, a +1 damage bonus, and the Combat Point cost for any action involving the weapon is reduced by 1 for the intended user. Anyone who is not the weapon's intended user does not receive any of these upgrades. The user must be proficient in the weapon in order to gain the benefits of the upgrades. Any upgrades performed on the weapon before it undergoes this upgrade will have to be re-performed, as it removes all upgrades performed on the weapon.

Razor Sharp (Contact) The weapon's blade is made as sharp as possible, granting a +3 damage bonus. This upgrade may only be performed on weapons with blades or points.

Retractable (Contact) This upgrade allows the weapon to be folded down to one size category smaller than standard. Weapons must be unfolded to use. Folding or unfolding the weapon requires 1 Combat Point.

Weighted (Contact) This upgrade adds weight to the contact of a blunt weapon, increasing its lethality, but making it unwieldy. It grants a –2 attack penalty, +1 damage die, and increases the weapon's weight by 50%. Only weapons that deal bludgeoning damage may be weighted.

Jagged (Contact) This upgrade adds ridges and serrations to the knife or sword, that rip and tear as they move through an object. When hit with a weapon with the jagged upgrade, the creature immediately takes 2 bleed dice (as if they had taken 6 damage) as long as they are not wearing protective armor.

Support (Contact) This upgrade adds a shelf to allow the resting of firearms on shields, allowing single handed shields to support any Large sized weapon while being held at the ready. When the firearm is used in this manner, it loses all benefit from optics upgrades, as well as any benefit given from vertical grips, angled foregrips, grippods or magazine handgrip. The firearm also gains a -5 penalty to all attacks. Only shields can use this upgrade.

Reinforced (Handle) This upgrade reinforces the handle of any staff or spear, making it more durable and heavier by inserting a steel rod into the center. It grants a +2 damage bonus for all bludgeoning attacks, and increases the weapon's weight by 10%. Only staffs or spears may be reinforced.

Upgrade	Available for	Loc	Cost	Time	Wt	Restr
Composite	Any weapon	C H	Cost of the Weapon x3	1 week	—	None
Concealed	Any Medium or smaller weapon	C	Cost of the Weapon	3 days	25%	None
Custom Handle	Any weapon	H	6	8 hours	—	None
Detailing	Any weapon	C H	Cost of the Weapon x0.7	1 week	—	None
Practice Weapon	Any weapon	C	Cost of the Weapon x0.5	4 hours	—	None
Personalized Weapon	Any Weapon	—	Cost of the Weapon x5 + 2 WP per Craft TN	2 weeks	—	None
Razor Sharp	Any Piercing or Slashing	C	Cost of the Weapon	2 days	—	None
Retractable	Any Diminutive or larger weapon	C	Cost of the Weapon x0.25	1 week	—	None
Weighted	Any Bludgeoning weapon	C	4	1 day	50%	None
Jagged	Any sword or knife	C	3	2 day	—	None
Support	Any Shield	C	5	1 hour	—	None
Reinforced	Any staff or spear	H	10	4 days	10%	None

Table 153: Melee Weapon Upgrades

Ranged Weapon Upgrades

Ranged weapons can be customized with plenty of upgrades, whether for form, or fashion. There are 4 locations where an upgrade may be placed. The Optic mount, the Tactical mount, the Barrel, and the Frame. Each ranged weapon listed has a certain amount of mounts, and some upgrades can only be performed on certain types of weapons. A character can only benefit from ranged weapon upgrades, if they are proficient in the ranged weapon the upgrade is performed on.

Optic Mount The optic mount is a mount that can accept lasers, flashlights, and optics. A ranged weapon can have no more than one upgrade per optic point.

Tactical Mount The tactical mount is a system of rails that can accept lasers, flashlights, bipods, and secondary weapons such as under-barrel shotguns or grenade launchers. A ranged weapon can have no more than one upgrade per tactical point.

Barrel The barrel can be modified to accept suppressors, muzzle brakes, bayonet lugs, or be upgraded itself. A ranged weapon can have no more than three upgrades per barrel at one time.

Frame Ranged weapons typically are built around a frame. This frame may be built or modified to accept extra rails, different grips and stocks, attach slings, or permit modified internal workings. It can also be customized to fit the user's style. A ranged weapon can have no more than four upgrades on its frame at one time.

None Upgrades with no requirements take up no slots, and don't require any slots to use this upgrade.

Barrel Upgrades

Extended Barrel (Barrel) This longer replacement barrel increases accuracy but adds weight and makes the weapon more noticeable. The firearm's range increment increases by 10' but the Perception TN to detect it decreases by 2. This upgrade also increases the weapon's weight by 5%, (rounded up to the nearest 0.1 lb). If this upgrade is placed on a carbine, assault, target, or battle rifle with a self loading rate of fire, the character can change its designation to DMR for the purpose of feats. If this upgrade is placed on a SMG with a self loading rate of fire, the character can change its designation to carbine rifle for the purpose of feats. A firearm can only have one designation at a time, and conversion removes its previous designation. Only rifles, handguns, machine pistols, SMGs, and machine guns may use this upgrade.

Heavy Barrel (Barrel) This replacement barrel increases a rifle's range increment by 20%, rounded to the nearest 5', and increases its weight by 15% (rounded up to the nearest 0.1 lb). Only rifles and machine guns may use this upgrade.

Ported Barrel (Barrel) This replacement barrel has large grooves or holes in the upper side of its tip, through which the muzzle blast is vented. A ported barrel reduces the Recoil Penalty by 1. If a barrel is threaded, it cannot be ported.

Threaded Barrel (Barrel) This replacement barrel is machined with screw threads on its tip, granting the firearm a threaded barrel. A threaded barrel may accept only one accessory at a time. If a barrel is ported, it cannot be threaded. Only rifles, handguns, machine guns, machine pistols, and SMGs may use this upgrade.

Match Barrel (Barrel) This replacement barrel is machined to tight specifications and tolerance for the best accuracy. A match barrel provides a +3 attack bonus when used with match grade ammunition and a +4 attack bonus when used with supermatch grade ammunition. This bonuses are only received when using the indicated ammunition. If a barrel is match, it cannot be precision. Only rifles, handguns, machine pistols, SMGs, and machine guns may use this upgrade.

Precision Barrel (Barrel) This barrel is machined to specifications to provide a benefit when using standard ammunition or match ammunition. It provides a +1 attack bonus when using all non-match ammo and a +2 attack bonus when using match or supermatch grade ammunition. If a barrel is precision, it cannot be match. Only rifles, handguns, SMGs, machine pistols, and machine guns may use this upgrade.

Smoothbore Barrel (Barrel) This replacement barrel is the standard smooth barrel for a shotgun. When using the smoothbore

barrel, a shotgun's range penalty applies to both its attack and damage. Only shotguns may use this upgrade.

Slug Barrel (Barrel) This replacement barrel is machined with rifling made specifically for slug ammunition in shotguns. The firearm gains a +2 attack bonus when using slugs, armor piercing slugs, or saboted slugs but takes a –4 attack penalty when using any other type of ammunition. Also, when using the slug barrel with slug, armor piercing slug, or saboted slug ammunition the range increments for the shotgun only affect the attack roll, not the damage roll. Only shotguns may use this upgrade.

Choked Barrel (Barrel) This replacement barrel is choked, allowing for better spread patterns. The firearm gains a +3 attack bonus when using birdshot ammunition and a +1 attack bonus when using buckshot ammunition, but takes a –2 attack penalty when using any other type of ammunition. Only shotguns may use this upgrade.

Threaded Smoothbore Barrel (Barrel) This replacement barrel is a smoothbore barrel that has been threaded on the end, granting the firearm a threaded barrel. A threaded barrel may accept only one accessory at a time. Only shotguns may use this upgrade.

Compact Barrel (Barrel) This replacement barrel is a shortened version of the original barrel made for a handgun. The firearm gains a +5 Stealth check bonus to conceal, but decreases the handgun's range increment by 20%, rounded to the nearest 5' and imparts a –1 attack penalty. The weapon is also unable to take any other barrel upgrades and all other barrel upgrades are removed. Only handguns may use this upgrade.

Shortened Rifle Barrel (Barrel) This upgrade turns a target rifle, assault rifle, battle rifle, or DMR into a short barreled rifle (SBR) of the same kind of rifle it was before. A SBR loses 15% of its range increment, rounded to the nearest 5', but can be used against an adjacent opponent with any stock for no penalty. Only target, battle, and assault rifles, and DMRs can use this upgrade. If this upgrade is placed on an assault, target, or battle rifle, the character can change its designation to carbine rifle for the purpose of feats. If this upgrade is placed on a DMR, the character can change its designation to battle rifle for the purpose of feats. A firearm can only have one designation at a time, and conversion removes its previous designation.

Bayonet Lug (Barrel) This upgrade installs a bayonet mount which can be used to attach a bayonet. Attaching or removing the bayonet requires 10 Combat Points. Only rifles, shotguns and SMGs with fixed or fixed folding stocks may use this upgrade.

Rifle Grenade Adapter (None) This accessory attaches to the tip of a firearm's barrel, allowing it to fire rifle grenades using blanks. The rifle can be used as normal if a grenade is not attached. The barrel must be threaded in order to use the rifle grenade adapter. It may be removed for 10 Combat Points.

Muzzle Brake (None) This accessory attaches to the tip of a firearm's barrel, reducing the Recoil Penalty by 3. The barrel must be threaded in order to use the muzzle brake. A muzzle brake gives a –4 to all Stealth checks made to hide the firearm. It may be removed for 10 Combat Points.

Suppressor (None) A suppressor is a device attached to or part of the barrel of a firearm to reduce the amount of noise and flash generated by firing the weapon. The barrel must be threaded in order to use the suppressor. When the suppressor is attached, each Perception check made to hear this weapon firing suffers a penalty based on the quality of the suppressor. Suppressors are rated by how many damage dice a caliber has, and by any modifications that the ammunition makes to those dice damage. A suppressor's level must meet or exceed the amount of damage dice it is rated for in order to suppress the firearm successfully. Attaching a suppressor to a weapon with a restriction rating below Restricted raises its restriction rating to Restricted, and removing it reduces it back to the highest restriction rating on the weapon. Suppressors come in one of three quality levels:

- **Low Quality** Perception TN to hear this weapon firing increases by +7 , or +10 if low pressure ammunition is used. Cost 3 WP per level.
- **Standard Quality** Perception TN to hear this weapon firing increases by +10 , or +15 if low pressure ammunition is used. Cost 7 WP per level.
- **High Quality** Perception TN to hear this weapon firing increases by +15 , or +25 if low pressure ammunition is used. Cost 15 WP per level.

> Example: *A level 2 suppressor can suppress 9x19mm, which uses 2d6, and .22 Long Rifle, which uses 1d4.*

A Suppressor gives a –4 to all Stealth checks made to hide the firearm.

Compensator (Barrel) A compensator is a weighted attachment that helps offset the recoil when firing multiple shots. It reduces the Recoil Penalty by 2, but gives a –2 to all Stealth checks made to hide the firearm. If a firearm has a compensator, it may not be threaded or ported. Only handguns and machine pistols may use this upgrade.

Removable Choke Barrel (Barrel) This replacement barrel is threaded for different types of chokes, allowing a character to change the type of spread by changing out the choke tubes. The barrel comes with 7 types of choke tubes, as listed below.

- **Rifled Choke** Grants a +2 attack bonus when using slugs, armor piercing slugs, or saboted slugs but gives a –4 attack penalty when using any other type of ammunition.
- **Extra Full Choke** Increases a shotgun's range by 35' when using birdshot, but gives –2 attack penalty when using any other type of ammunition.
- **Full Choke** Grants a +2 attack bonus and increases a shotgun's range by 20' when using birdshot, but gives –2 attack penalty when using any other type of ammunition..
- **Modified Choke** Increases a shotgun's range by 10' when using birdshot or buckshot, but gives –2 attack penalty when using any other type of ammunition.

- **Improved Cylinder Choke** Grants a +1 attack bonus when using birdshot or buckshot but gives a –1 attack penalty when using any other type of ammunition.
- **Cylinder Choke** Retains all the bonuses, penalties, and features of a Smoothbore Barrel.
- **Breaching Choke** Retains all the bonuses, penalties, and features of a Smoothbore Barrel, reduces a shotgun's range by 10', and gives the shotgun's buttstroke attack an additional damage die of slashing damage.

If the shotgun is fired without a choke, all attacks made with the shotgun have a –15 attack penalty. Changing a choke costs 8 Combat Points. Only shotguns may use this upgrade.

Insert (Barrel) An insert is a piece of rifled metal, usually steel, that allows the use of smaller caliber ammunition in a firearm chambered for larger ammunition. They come in various calibers in both reduction and original calibers. Below are the listings for the original calibers, and their available reductions. Only single shot weapons, shotguns with 2 or more barrels, and cylinder firearms may use this upgrade.

10 Gauge
20 Gauge
12 Gauge
.45 ACP
.44 Magnum / .44 Special
9x19mmf

12 Gauge
20 Gauge
16 Gauge
.45 ACP
.40 S&W
.410 Bore
.44 Magnum / .44 Special
.357 Magnum / .38 Special
9x19mm
.380 ACP
.22 Long Rifle / .22 Short
.22 WMR
.17 HMR

20 Gauge
.45 ACP
.410 Bore
.44 Magnum / .44 Special
.357 Magnum / .38 Special
9x19mm
.22 Long Rifle / .22 Short

.410 Bore
.22 Long Rifle / .22 Short
9x19mm
.380 ACP

37mm
12 Gauge

Upgrade	Available for	Loc	Cost	Time	Wt	Restr
Extended Barrel	Any rifle, handgun, machine pistol, machine gun, or SMG	B	15	1 hour	See text	None
Heavy Barrel	Any rifle or machine gun	B	8	1 hour	See text	None
Ported Barrel	Any firearm	B	1	30 min.	—	None
Threaded Barrel	Any rifle, handgun, machine pistol, machine gun, or SMG	B	10	1 hour	—	None
Match Barrel	Any rifle, handgun, machine pistol, machine gun, or SMG	B	20	1 day	—	None
Precision Barrel	Any rifle, handgun, machine pistol, machine gun, or SMG	B	15	1 day	—	None
Smoothbore Barrel	Any shotgun	B	4	30 min.	—	None
Slug Barrel	Any shotgun	B	5	30 min.	—	None
Choked Barrel	Any shotgun	B	5	30 min.	—	None
Threaded Smoothbore Barrel	Any shotgun	B	6	30 min.	—	None
Compact Barrel	Any handgun	B	3	15 min.	—	None
Shortened Rifle Barrel	Any target, battle, or assault rifle, or DMR	B	26	1 week	—	None
Bayonet Lug	Any rifle, SMG, or shotgun with a fixed or fixed folding stock	B	1	2 hours	—	None
Rifle Grenade Adapter	Any rifle	B	9	10 CP	0.8	None
Muzzle Brake	Any firearm	B	12	10 CP	1.0	None
Suppressor	Any rifle, SMG, machine pistol, machine gun, shotgun, or non-cylinder handgun	B	See Text	10 CP	1.0	R
Compensator	Any handgun or machine pistol	B	9	4 hours	1.0	None
Removable Choke Barrel	Any shotgun	B	12	30 min.	—	None
Inserts	Single shot weapons, shotguns with 2 or more barrels, and cylinder firearms	B	1 ea.	12 CP	—	None

Table 154: Barrel Upgrades

Optics and Sights Upgrades

Optic Mount (Frame) The firearm or crossbow gains an optic upgrade location if it doesn't have one. A firearm or crossbow may only have one optic mount.

Advanced Combat Sight (Optics) This accessory combines the benefits of a red dot sight and telescopic sight of 1.5-3×, or 3.1-6× magnification. When using this sight, a character does not suffer the –4 penalty for the first range increment, as would be on the normal telescopic sight, and they must spend 2 Combat Points to acquire their target. It comes in one of two styles:

- **Balanced Reticle** Grants a +1 attack bonus to all attack rolls made within the weapon's first 5 range increments.
- **Precise Reticle** Reduces the range increment penalty by half, for the weapon's first 5 range increments.

Shotguns, grenade launchers, machine-pistols, bows, crossbows, and handguns do not gain the benefit of using any telescopic sight stronger than 3×.

Day/Night Sight (Optics) This accessory combines the benefits of a night vision sight and a telescopic sight. Switching between nighttime and daytime modes costs 12 Combat Points.

Red Dot Sight (Optics) This accessory projects an illuminated red dot onto a piece of glass or plastic, superimposing it over the shooter's field of vision as he looks through the sight. It visually resembles a laser sight to the shooter, but no actual dot is projected downrange. It comes in one of three styles:

- **Quick Reticle** Grants a +2 attack bonus to all attack rolls made within the weapon's first range increment.
- **Balanced Reticle** Grants a +1 attack bonus to all attack rolls made within the weapon's first 5 range increments.
- **Precise Reticle** Reduces the range increment penalty by half, for the weapon's first 5 range increments.

Red Dot Magnifier (None) This accessory magnifies a red dot, providing more precise firing at range. It can be retracted to allow for use of the red dot without the magnifier, or deployed to make use of the magnification. A Red Dot Magnifier must be mounted onto a firearm with a balanced or precise reticle red dot sight. it cost 3 Combat Points to deploy or retract. When deployed, it increases the range increment by the intended magnification, but a character must spend 4 Combat Points acquiring their target. If the character changes targets or otherwise loses sight of the target, they must spend 4 Combat Points to reacquire the target. When using this sight, a character does not suffer the –4 penalty for the first range increment, as would be on the normal telescopic sight. When retracted, the red dot works as normal. Red Dot Magnifiers can be purchased in magnification levels of 1.5-3×, or 3.1-6× magnification. Red Dot Magnifiers may only be used with Balanced Reticle or Precise Reticle Red Dot Sight. Shotguns, grenade launchers, machine-pistols, bows, crossbows, and handguns do not gain the benefit of using any telescopic sight stronger than 3×.

- **1.5**×-**3**× Multiply range increment by 1.25
- **3.1**×-**6**× Multiply range increment by 1.5

Telescopic Sight (Optics) A telescopic sight is a sighting device that makes it easier to hit targets at long range. However, although a scope magnifies the image of the target it has a very limited field of view, making it difficult to use at close range. The telescopic sight increases the range increment for a ranged weapon. To use a scoped weapon, a character must spend 6 Combat Points acquiring their target. If the character changes targets or otherwise loses sight of the target, they must spend 6 Combat Points to reacquire the target. Any character attempting to attack a target within the weapon's first range increment suffers a –4 attack penalty. Shotguns, grenade launchers, machine-pistols, bows, crossbows, and handguns do not gain the benefit of using any telescopic sight stronger than 3×, SMGs and rocket launchers do not gain the benefit of using any telescopic sight stronger than 6×, and carbine rifles do not gain the benefit from using any telescopic sight stronger than 9×.

All ranges are rounded up to the nearest 5'

- **1**×-**1.49**× Does not cost Combat Points to acquire a target, and takes no attack penalty within the first range increment.
- **1.5**×-**3**× Multiply range increment by 1.25
- **3.1**×-**6**× Multiply range increment by 1.5
- **6.1**×-**9**× Multiply range increment by 1.75
- **9.1**×-**12**× Multiply range increment by 2
- **12.1**×-**15**× Multiply range increment by 2.25
- **15.1**×-**18**× Multiply range increment by 2.5
- **18.1**×-**21**× Multiply range increment by 2.75
- **21.1**×**+** Multiply range increment by 3

Adjustable Telescopic Sight (Optics) This accessory is an adjustable telescopic sight, allowing for multiple magnification levels in a single sight. It can be purchased in a variety of different magnifications that must be in a range (Such as 1x-6x). Switching between magnification levels costs 12 Combat Points.

Thermal Sight (Optics) This accessory literally sees heat. It negates all vision penalties for darkness and smoke with regard to people, creatures, and objects warmer than the surrounding scenery, but only when looking at sources of heat—ambient or otherwise—between 60-120°F/15-49°C (outside this range, everything appears cold blue or white hot). Further, a thermal sight cannot register warmth through heat-shielded scenery or through any scenery over 2 inches thick. If the accessory is purchased with magnification it operates like an equivalent telescopic sight.

Night Vision Sight (Optics) Night vision optics amplify existing low levels of visible and near-infrared light and convert them to a monochrome visual image. In twilight or brighter lighting conditions, a night vision sight is useless as the electronics shut down to prevent damage. So long as at least Dim light is available, this accessory negates the vision penalties applied by low ambient light. The accessory can be purchased with magnification and operates like an equivalent telescopic sight.

Standard Laser Sight (Optics/Tactical) This accessory projects a visible-frequency laser beam, usually red, parallel to the weapon's barrel. It grants a +1 attack bonus to all single shot attack rolls and a +2 attack bonus to all potshot attack rolls made against any target within the first range increment. This attack bonus can not be combined with a sight that grants an attack bonus. A laser sight can also be purchased in blue, green, or purple, but these cost 3 more than the original WP cost.

Infrared Laser Sight (Optics/Tactical) This accessory operates like a standard laser sight but projects an infrared dot, visible only with night-vision equipment. It grants a +1 attack bonus to all single shot and potshot attack rolls made against any target the first 2 range increments. This attack bonus can not be combined with a sight that grants an attack bonus.

Multi-Mode Laser Sight (Optics/Tactical) This accessory combines a standard laser sight and an IR laser sight in one housing. Switching between modes requires 2 Combat Points.

Ghost Ring Sight (Optics) This accessory is a 1-2 inch long tube, with the post mounted at the inside end of the tube, or a ring on the optics mount that still utilizes the standard end sight. It reduces the range increment of the weapon by 25%, rounded to the nearest 5', but grants a +2 attack bonus to all attack rolls made within the weapon's first 4 range increments.

High Visibility Sights (None) These are sights with a built-in glowing insert, usually tritium, that allow sight acquisition even in zero light. This upgrade reduces all concealment due to darkness by ½. This upgrade does not take up any upgrade slots.

Adjustable Iron Sights (Frame) These are sights that can be adjusted to fire at a longer range, while still maintaining the combat effectiveness and sleek design of combat styled sights. This upgrade grants a +2 attack bonus on the weapon's second range increment.

Canted Sights (Tactical) These are sights that are at a 45° cant, allowing for a weapon with a telescopic sight to be used with its iron sights. When using these sights, the weapon can use its standard range even if it has a telescopic sight, but using these sights grants a –10' range penalty on any weapon they are attached to.

Killflash (None) This is an adapter for telescopic sights that makes them more difficult to detect due to the reflection from the glass in any telescopic sight. When installed, it grants a +2 bonus to all Stealth checks to hide any weapon with a telescopic sight. This upgrade is installed on any telescopic sight. This upgrade does not take up any upgrade slots.

Upgrade	Available for	Loc	Cost	Time	Wt	Restr
Optic Mount	Any firearm or crossbow	F	2	30 min.	—	None
Advanced Combat Sight, 1.5-3×	Any ranged weapon	O	50	30 min.	1.5	None
Advanced Combat Sight, 3.1-6×	Any ranged weapon	O	80	30 min.	1.5	None
Adjustable Telescopic Sight	Any ranged weapon	O	10 per category	30 min.	2.0	None
Day/Night Sight, 1.5-3×	Any ranged weapon	O	150	30 min.	2.0	None
Day/Night Sight, 3.1-6×	Any ranged weapon	O	200	30 min.	2.0	None
Day/Night Sight, 6.1-9×	Any ranged weapon	O	250	30 min.	2.0	None
Red Dot Sight	Any ranged weapon	O	12	30 min.	0.9	None
Red Dot Magnifier, 1.5-3×	Any ranged weapon with a Red Dot Sight	—	12	30 min.	0.8	None
Red Dot Magnifier, 3.1-6×	Any ranged weapon with a Red Dot Sight	—	12	30 min.	0.8	None
Telescopic Sight, 1-1.49×	Any ranged weapon	O	1	30 min.	0.9	None
Telescopic Sight, 1.5-3×	Any ranged weapon	O	2	30 min.	0.9	None
Telescopic Sight, 3.1-6×	Any ranged weapon	O	3	30 min.	1.0	None
Telescopic Sight, 6.1-9×	Any ranged weapon	O	4	30 min.	1.1	None
Telescopic Sight, 9.1-12×	Any ranged weapon	O	5	30 min.	1.3	None
Telescopic Sight, 12.1-15×	Any ranged weapon	O	6	30 min.	1.4	None
Telescopic Sight, 15.5-18×	Any ranged weapon	O	7	30 min.	1.5	None
Telescopic Sight, 18.5-21×	Any ranged weapon	O	8	30 min.	1.6	None
Telescopic Sight, 21.1×+	Any ranged weapon	O	10	30 min.	1.6	None
Thermal Sight, no magnification	Any ranged weapon	O	240	30 min.	3.0	None
Thermal Sight, 1.5-3×	Any ranged weapon	O	320	30 min.	4.0	None
Night Vision Sight, no magnification	Any ranged weapon	O	100	30 min.	2.0	None
Night Vision Sight, 1.5-3×	Any ranged weapon	O	150	30 min.	2.0	None
Night Vision Sight, 3.1-6×	Any ranged weapon	O	200	30 min.	2.1	None
Standard Laser Sight	Any ranged weapon	O T	3	30 min.	0.1	None
Infrared Laser Sight	Any ranged weapon	O T	28	30 min.	0.5	None
Multi-Mode Laser Sight	Any ranged weapon	O T	32	30 min.	0.8	None
Ghost Ring Sight	Any ranged weapon	O	4	20 min.	0.2	None
High Visibility Sights	Any ranged weapon	—	14	4 hours	—	None
Adjustable Iron Sights	Any ranged weapon	F	12	4 hours	—	None
Canted Sights	Any rifle, shotgun, SMG, machine pistol, or machine gun	T	10	5 min.	—	None
Killflash	Any weapon with a telescopic sight	—	4	1 min.	—	None

Table 155: Optics Upgrades

Ergonomics and Aesthetic Upgrades

Custom Grip (Frame) The weapon's grip is fitted to a mold of the purchaser's hand, granting them a +1 bonus with all attack rolls made with the weapon. The purchaser can also have the weapon's grip enlarged or reduced, allowing the weapon to be considered one size larger or smaller when using the weapon, but not concealing or having the weapon otherwise presented. This does not resize the weapon's size for any other aspect where weapon size may be a factor. Anyone else who tries to use the weapon suffers a –2 penalty to their attack rolls. Only handguns may use this upgrade.

Grip Sight (Frame) This upgrade is a laser sight built into the grip of the weapon, forgoing the extra bulk of a normal laser sight, but at a higher cost. It grants a +1 attack bonus to all single shot attack rolls and a +2 attack bonus to all potshot attack rolls made against any target within the first range increment. This attack bonus can not be combined with a sight that grants an attack bonus. A grip sight can also be purchased in blue, green, or purple, but these cost 6 more than the original WP cost. Only handguns may use this upgrade.

Detailing (Frame) This upgrade gives the weapon an engraved or a precious metal inlay, granting its wielder a +5 bonus to all Presence checks while the target has line of sight to it. This upgrade also increases the weapon's worth by 75%. The weapon loses this quality if it suffers any damage. Though it may be restored by repairing it with a successful Craft (Mechanical) check.

Finish (None) This upgrade changes the finish to either blued (a dark finish), chrome (a shiny, light finish), camouflage (woodland, desert, or winter), or rainbow (any color not black, chrome or a camo pattern). To change the finish of the gun to a camouflage color, it costs 6 more than the original WP cost. When used in the appropriate setting, camouflage gives a +10 to all Stealth checks for all Large and larger firearms. This upgrade does not take up any upgrade slots.

Bipod (Tactical/Frame) A bipod gives a weapon additional stability and improves aim under the right circumstances. To use a bipod, a character must be able to place it on a solid surface at roughly shoulder height. The most common method of using a bipod is to fire from the prone position, so that the user's shoulder, like the weapon and the bipod, is close to the ground. However, a weapon with a bipod can be used from a crouched or even standing position if the bipod is set on a suitable surface. Only Medium or larger weapons can benefit from a bipod. A bipod used with a Medium or larger weapon grants the user a +3 attack bonus, but while using the bipod, the user does not recieve any attack bonuses from grips or slings. Any Huge or larger weapon must be used with a bipod or other type of mount. Most bipods can be folded up for ease of transport. Deploying or retracting a bipod costs 1 Combat Point.

Ergonomic Stock (Frame) This upgrade is usually seen on sniper rifles and competition shotguns. It requires precise measurements of the intended wielder's upper body (which takes 1d3 hours to acquire) to ensure that the gun perfectly matches his shooting posture. It grants the intended wielder a +3 attack bonus on all single shot attack rolls made using the firearm and decreases the Combat Point cost to perform a single shot attack by 1. Anyone else who tries to use the weapon suffers a –4 attack penalty, unless it is readjusted for that user, which also takes 1d3 hours. When a Medium or smaller weapon is upgraded with a stock its size rating increases to large. A weapon can only have one stock upgrade at a time. Only rifles, SMGs, shotguns, and machine guns may use this upgrade.

Fixed Stock (Frame) This upgrade gives the weapon a fixed stock that increases accuracy and while allowing the stock to be used as a secondary weapon. It reduces the Recoil Penalty by 2 and decreases the Combat Point cost to perform a single shot attack by 1. When a Medium or smaller weapon is upgraded with a stock its size rating increases to Large. A weapon can only have one stock upgrade at a time. Only rifles, SMGs, machine pistols, shotguns, stand alone grenade launchers, and machine guns may use this upgrade.

Pistol Grip (Frame) This upgrade removes the stock and gives the weapon a pistol like grip that allows the weapon to be more concealable, but at a loss of accuracy. It doubles the range increment attack penalty, and removes penalties when fighting an adjacent enemy. When a Large or larger weapon is upgraded with a pistol grip, its size rating decreases by one size category. A pistol grip may not be used to buttstroke. This upgrade is considered a stock upgrade, and a weapon can only have one stock upgrade at a time. Only rifles, SMGs, shotguns, and machine guns may use this upgrade.

Folding Stock (Frame) This upgrade gives the weapon a collapsible stock that increases accuracy while allowing the stock to be folded up for quick carry. When the stock is extended, it reduces the Recoil Penalty by 2 and decreases the Combat Point cost to perform a single shot attack by 1. A folding stock may not be used to buttstroke. When it is folded, it doubles the range increment attack penalty, and removes penalties when fighting an adjacent enemy. When folded, the weapon's size rating is reduced to Medium, or goes back to its original size rating as if it did not have the stock attached, whichever size is smaller. When unfolded, the weapon's size rating is increased to Large, or goes back to its original size rating as if it did not have the stock attached, whichever size is larger. Folding or unfolding a folding stock cost 3 Combat Points. A weapon can only have one stock upgrade at a time. Only rifles, SMGs, machine pistols, shotguns, stand alone grenade launchers, and machine guns may use this upgrade.

Fixed Folding Stock (Frame) This upgrade gives the weapon a fixed stock that has the ability to fold parallell to the frame of the weapon, granting the some of the benefits of both a folding stock and a fixed stock. When the stock is extended, it reduces the Recoil Penalty by 2 and decreases the Combat Point cost to perform a single shot attack by 1. A fixed folding stock may be used to buttstroke. When it is folded, it doubles the range increment attack penalty, and removes penalties when fighting an adjacent enemy. When folded, the weapon's size rating is reduced to Medium, or goes back to its original size rating as if it did not have the stock attached, whichever size is smaller. When unfolded, the weapon's size rating is increased to Large, or goes back to its original size rating as if it did not have the stock attached, whichever size is larger. Folding or unfolding a fixed folding stock cost 5 Combat Points. A weapon can only have one stock upgrade at a time. Only rifles, SMGs, machine pistols, shotguns, stand alone grenade launchers, and machine guns may use this upgrade.

Synthetic Stock (Frame) This upgrade gives the weapon a synthetic stock that increases accuracy while saving on weight. It decreases the Combat Point cost to perform a single shot attack by 2 and decreases a weapon's weight by 30%. A synthetic stock may not be used to buttstroke. When a Medium or smaller weapon is upgraded with a stock its size rating increases to Large. A weapon can only have one stock upgrade at a time. Only rifles, SMGs, machine pistols, shotguns, stand alone grenade launchers, and machine guns may use this upgrade.

Buffer Stock (Frame) This upgrade gives the weapon a stock with a recoil tube spring, which allows for greatly reduced recoil when firing multiple rounds. It reduces the Recoil Penalty by 5. A buffer stock may not be used to buttstroke. When a Medium or smaller weapon is upgraded with a stock its size rating increases to Large. A weapon can only have one stock upgrade at a time. Only rifles, SMGs, machine pistols, shotguns, and machine guns may use this upgrade.

Bumpfire Stock (Frame) This upgrade gives the weapon a stock that recesses back as the user fires which allows for more control while bumpfiring. It grants a +4 attack bonus to all bumpfire attack rolls but a –2 attack penalty to all single shot and double tap attack rolls. A bumpfire stock may not be used to buttstroke. When a Medium or smaller weapon is upgraded with a stock its size rating increases to Large. A weapon can only have one stock upgrade at a time. Only rifles, machine pistols, and shotguns may use this upgrade.

Detachable Stock (Frame) This upgrade gives the weapon a stock that may be removed from weapon. When attached it reduces the Recoil Penalty by 1, and it grants a +1 attack bonus to all single shot and double tap attack rolls. When attached to a weapon a detachable stock always increases the size rating of the weapon to Medium. A detachable stock may not be used to buttstroke. Attaching or removing a detachable stock cost 6 Combat Points. A weapon can only have one stock upgrade at a time. Only handguns and machine pistols may use this upgrade.

Integral Stock (Frame) This upgrade gives the weapon a stock built into the weapon, minimizing the space it takes up, but still allowing for a balancing stock to be pulled out if needed. When the stock is extended, it reduces the Recoil Penalty by 2. An integral stock may not be used to buttstroke. When a Small or smaller weapon is upgraded with this stock its size rating increases to Medium. A weapon can only have one stock upgrade at one time. If this upgrade is placed on a handgun, the character can change its designation to machine pistol for the purpose of feats.Only handguns and machine pistols may use this upgrade.

Speedfeed Stock (Frame) This upgrade gives the weapon a stock with built in shell holders. It reduces the Recoil Penalty by 2, decreases the Combat Point cost to perform a single shot attack by 1, and stores 6 shotgun shells for use without needing to reach into a pack to retrieve ammunition. A speedfeed stock may not be used to buttstroke. When a Medium or smaller weapon is upgraded with a stock, its size rating increases to Large. A weapon can only have one stock upgrade at one time. Only shotguns may use this upgrade.

Stock Mag Pouch (None) This upgrade adds a small pouch on the stock that may be used to hold one magazine that holds 40 cased rounds or less, or one magazine that holds 6 shelled rounds or less. Using a stock mag pouch negates the necessity to reach into a pack to retrieve ammunition. A stock mag pouch can only be attached to a stock and if the stock is removed, the mag pouch is as well. A stock can only have one pouch at a time. This upgrade does not take up any upgrade slots. This upgrade can not be used with the Pistol Grip stock.

Stock Cartridge Holder (None) This upgrade adds small pouch on the stock that may be used to hold 12 cased cartridges. Using a stock cartridge holder negates the necessity to reach into a pack to retrieve ammunition. A stock cartridge holder can only be attached to a stock and if the stock is removed, the cartridge holder is as well. A stock can only have one pouch at a time. This upgrade does not take up any upgrade slots. This upgrade can not be used with the Pistol Grip stock.

Buttpad (None) This upgrade adds a soft padding to the butt of a stock of a weapon to give increased recoil control. This upgrade reduces the Recoil Penalty by 1. A buttpad can only be attached to a stock and if the stock is removed, the buttpad is as well. This upgrade does not take up any upgrade slots. This upgrade can not be used with the Pistol Grip stock.

Beveled Magazine Well (Frame) This upgrade cuts a tapered bevel in the magazine well so that it is easier and faster to insert magazines into handguns and machine pistols. It decreases the Combat Point cost to reload a handgun or machine pistol with a magazine by 1. Only handguns and machine pistols may use this upgrade.

Upgrade	Available for	Loc	Cost	Time	Wt	Restr
Custom Grip	Any handgun	F	12	8 hours	—	None
Grip Sight	Any handgun	F	10	20 min.	—	None
Detailing	Any ranged weapon	F	Cost of the Weapon x0.7	1 week	—	None
Finish	Any ranged weapon	—	5	4 hours	—	None
Bipod	Any Medium or larger ranged weapon	F T	6	25 min.	2.0	None
Ergonomic Stock	Any rifle, shotgun, SMG, or machine gun	F	50	3 days	—	None
Fixed Stock	Any rifle, shotgun, SMG, machine pistol, stand alone grenade launcher, or machine gun	F	3	30 min.	2.0	None
Pistol Grip	Any rifle, shotgun, SMG, or machine gun	F	1	30 min.	0.5	None
Folding Stock	Any rifle, shotgun, SMG, machine pistol, stand alone grenade launcher, or machine gun	F	6	30 min.	2.0	None
Fixed Folding Stock	Any rifle, shotgun, SMG, machine pistol, stand alone grenade launcher, or machine gun	F	8	30 min.	2.3	None
Synthetic Stock	Any rifle, shotgun, SMG, machine pistol, stand alone grenade launcher, or machine gun	F	13	30 min.	—	None
Buffer Stock	Any rifle, shotgun, SMG, machine pistol, or machine gun	F	20	30 min.	2.0	None
Bumpfire Stock	Any rifle, shotgun, or machine pistol	F	17	30 min.	2.0	None
Detachable Stock	Any handgun or machine pistol	F	5	1 day	1.1	None
Integral Stock	Any machine pistol	F	6	2 hours	1.0	None
Speedfeed Stock	Any shotgun	F	3	30 min.	1.8	None
Stock Mag Pouch	Any weapon with a stock	—	2	5 min.	—	None
Stock Cartridge Holder	Any weapon with a stock	—	1	5 min.	—	None
Buttpad	Any weapon with a stock	—	3	5 min.	—	None
Beveled Magazine Well	Any handgun or machine pistol	F	6	2 hours	—	None

Table 156: Ergonomics and Aesthetics Upgrades

Firing Mode Upgrades

Full Auto Upgrade (Frame) This upgrade allows the weapon to fire in full auto mode, fitting it with parts designed to take the stress of automatic fire. This upgrade lets the person performing the upgrade choose their rate of fire, either slow, medium, or fast. This upgrade raises the weapon's restriction rating to Military and Police. You can also use this upgrade to remove full auto mode from a firearm, reducing its restriction rating down to the highest restriction rating due to upgrades.

Burst Fire Upgrade (Frame) This upgrade allows the weapon to fire in three or two round burst fire mode, fitting it with parts designed to take the stress of automatic fire. This upgrade raises the weapon's restriction rating to Restricted, if it is the only firing mode upgrade installed. If it is not, then the weapon restriction rating defaults to the highest on the weapon. You can also use this upgrade to remove burst fire mode from a firearm, reducing its restriction rating down to the highest restriction rating due to upgrades.

Slamfire Modification (Frame) This upgrade removes the trigger disconnect of a pump action firearm, allowing the weapon to fire in slamfire mode. This upgrade increases the weapon's error range by 5%.

Single Action Modification (Frame) This upgrade turns a double action revolver into a single action revolver, giving it all of the abilities and functionality of a single action revolver.

Upgrade	Available for	Loc	Cost	Time	Wt	Restr
Full Auto Upgrade	Any semi-automatic firearm	F	15	4 days	—	M&P
Burst Fire Upgrade	Any semi or fully automatic firearm	F	19	4 days	—	R
Slamfire Upgrade	Any pump action firearm	F	8	3 days	—	None
Single Action Modification	Any DA cylinder firearm	F	8	4 days	—	None

Table 157: Firing Mode Upgrades

Internal Upgrades

Precision Upgrade (None) These upgrades improve the weapon's accuracy by competitive degrees. Each upgrade has the following effects. This upgrade does not take up any upgrade slots.

- If the weapon has an error range from manufacturing or modification, it becomes mastercraft +1 firearm.
- If the weapon doesn't have an error range from manufacturing or modification, it becomes a mastercraft +2 firearm.
- If the weapon is considered to be mastercraft +1 or +2, it becomes a grandmastercraft +3 firearm.

Clockwork Action (Frame) This upgrade completely tears down and examines the gun's inner workings, reconditioning and replacing any parts as necessary, and treating the weapon for durability and resilience. The weapon's error range due to the manufacture or modification of the weapon is removed. This upgrade takes no frame upgrades.

Sawed-Off (Frame and Barrel) A shotgun may be cut down to one of the following 4 lengths. Any shotgun with more than one barrel must have all barrels cut off. Cutting the barrel doesn't change how the shotgun's barrel functions.

- **Combat Cut (15-20")** The weapon's range increment decreases by 5' and it does not take the ranged attack penalty when fighting an adjacent opponent.
- **Coach Cut (6-14")** The weapon's range increment decreases by 10' and gains a +2 bonus to Stealth checks to hide it. It does not take the ranged attack penalty when fighting an adjacent opponent.
- **Compact Cut (6" standard minimum)** The weapon's range increment decreases by half (rounded down, minimum 10'), its size becomes Medium, it gains a +2 bonus to Stealth checks to hide it and its weight decreases by 40%. If a shotgun is a semi-automatic, lever action, bolt action or pump action with an internal magazine, its capacity decreases by 50%. Only self loading, pump action, lever action, bolt action, single- or double-fire shotguns may use this upgrade. It does not take the ranged attack penalty when fighting an adjacent opponent.
- **Pistol Cut (less than 6" of barrel and a pistol grip)** The weapon's range increment decreases to 5', its size becomes Small and its weight decreases by 60%. Only shotguns with single or doublefire may use this upgrade. It does not take the ranged attack penalty when fighting an adjacent opponent.

Extended Shotgun Magazine Tube (None) This upgrade replaces a shotgun's internal magazine cap with an extended tube that allows more rounds to be held. Each upgrade increases the shotgun's capacity by the rounds indicated. Different magazine extension sizes have different requirements.

- **One Round** Any internal magazine shotgun.
- **Two Round** Any internal magazine shotgun with a barrel that isn't Compact Cut, or Pistol Cut.
- **Three Round** Any internal magazine shotgun with a barrel that isn't Coach cut, Compact Cut, or Pistol Cut
- **Five Round** Any internal magazine shotgun with a barrel that isn't Combat Cut, Coach Cut, Compact Cut, or Pistol Cut

Only self loading, pump action, lever action or bolt action shotguns with internal magazines may accept this upgrade.

Stripper Clip Guide (Frame) This upgrade gives a rifle with a box magazine the ability to load its magazine without removing the magazine from the firearm, using stripper clips. Only magazine fed rifles may accept this upgrade.

Breakdown Frame (Frame) This upgrade partially re-engineers the firearm to turn it into a breakdown firearm that can be separated into two pieces for easy carrying and concealment. When broken down, the firearm is completely unusable. A firearm's magazine can be loaded in this state, but can not have a round in its chamber. It takes 12 CP to breakdown a whole firearm, or put a firearm back together. When broken down, the firearm is split into two objects, each one being one size smaller than the firearm's most compact size. Only Medium or larger ranged weapons may accept this upgrade.

Fortified Frame(Frame) This upgrade strengthens and fortifies the firearm's parts to allow it to use over pressure ammunition without the threat of destruction on failure or error range increase, but increases the weight of the firearm by 10%, rounded up. The firearm will not explode from over pressure ammunition and does not take error range granted from over pressure ammunition, but still gains any other error range from ammunition types.

Tightened Drawstring (Frame) This upgrade makes the drawstring of a bow, or crossbow stronger, giving it more power. When calculating the bonus to damage from POW for recurve bows, use POW×1.5, rounded up. When calculating damage for the upgraded crossbow, the crossbow gains a +1 damage bonus per damage dice. Only recurve bows and crossbows may accept this upgrade.

Upgrade	Available for	Loc	Cost	Time	Wt	Restr
Precision Upgrade	Any ranged weapon	—	25	2 weeks	—	None
Clockwork Action	Any firearm	F	10	2 days	—	None
Sawed-off	Shotguns (see text)	F/B	—	5 min.	—	None
Extended Shotgun Magazine Tube	Shotguns (see text)	—	1/Round	10 min.	—	None
Stripper Clip Guide	Magazine Fed Rifles	F	15	1 day	0.3	None
Breakdown	Any Medium or larger ranged weapon	F	25	1 week	—	None
Fortified	Any firearm	F	30	1 week	See text	None
Tightened Drawstring	Recurve Bows and Crossbows	F	4	5 min.	—	None

Table 158: Internal Upgrades

Tactical Upgrades

Extra Rail (None) The firearm, bow or crossbow gains 1 additional tactical rail upgrade location. No firearm may possess more than 4 tactical rail locations. This upgrade does not take up any upgrade slots.

Taser Mount (Tactical) This accessory is an M26 Taser that attaches to the bottom rail of a rifle's tactical rail, much like a grenade launcher, and is used similarly to one. It may be attached or removed with 12 Combat Points. Only rifles and SMGs may use this upgrade.

KAC Masterkey (Tactical) This accessory is a shortened Remington 870 Express shotgun that attaches to the bottom rail of a rifle's tactical rail, much like a grenade launcher. It may be attached or removed with 12 Combat Points. The masterkey has an internal magazine of 3, a range increment of 20', uses 12 Gauge shells, and does not gain error range due to ammunition. Only rifles and SMGs may use this upgrade.

M26 Modular Accessory Shotgun System (Tactical) This accessory is a standalone bolt action shotgun, that attaches to the bottom rail of a rifle's tactical rail, much like a grenade launcher. It may be attached, or removed with 12 Combat Points. The M26 uses Saiga 12 box magazines (See: Ops and Tactics:Handy Armory Manual), and comes with a single 3 round magazine, has a range increment of 20', uses 12 Gauge shells and does not gain error range due to ammunition. Only rifles and SMGs may use this upgrade.

SIX12 Mounted (Tactical) This accessory is a standalone semi automatic shotgun, that attaches to the bottom rail of a rifle's tactical rail, much like a grenade launcher. It may be attached, or removed with 12 Combat Points. The SIX12 has a removable cylinder that holds 6 rounds, a range increment of 25', uses 12 Gauge shells and does not gain error range due to ammunition. This weapon is made from the SIX12 kit, which must be purchased in order to build this upgrade. The SIX12 can use its cylinders like magazines, and each cylinder cost 2 WP. Only rifles and SMGs may use this upgrade.

Flamer Mounted (Tactical) This accessory is a standalone miniature flamethrower, that attaches to the bottom rail of a rifle's or shotgun's tactical rail, much like a grenade launcher. It may be attached, or removed with 12 Combat Points. The flamer has a fuel cylinder that holds 5 shots. It shoots a 5-foot wide, 15-foot long line of flame or a 10' cone of flame that deals 2d3 points of fire damage to all creatures and objects in its path. No attack roll is necessary. Any creature caught in the line of flame can make a Reflex Saving Throw [TN15] to take half damage. Any creature or flammable object that takes damage from a flamer catches on fire, taking 1d6 points of fire damage each subsequent round until the flames are extinguished. A flamer can shoot 5 times before the fuel supply is depleted and the fuel canister must be replaced for 4 Combat Points.. The Exotic Firearms Proficiency (Flamethrowers) feat is required to use this weapon. Only rifles, shotguns, and SMGs may use this upgrade.

Patrol Sling (None) This item allows the wielder to hang a weapon from their shoulder, allowing use of their hands without having to set the weapon down. The weapon cost 5 CP to sling, or unsling from a shoulder. Only shotguns, rifles, SMGs, machine guns, grenade launchers, and crossbows may use this upgrade. This upgrade does not take up any upgrade slots.

Shotgun Sling (None) This item works just as a patrol sling, but also holds 15 shotgun shells, which are considered ready. Only shotguns may use this upgrade. Using a shotgun sling negates the necessity to reach into a pack to retrieve ammunition. This upgrade does not take up any upgrade slots.

Tactical Sling (None) This item holds a firearm or crossbow across the wearer's body, keeping its grip within a foot of normal hand position. The wielder is always considered armed with the weapon, but it cannot be concealed. Only shotguns, rifles, SMGs, machine guns, grenade launchers, and crossbows may use this upgrade. This upgrade does not take up any upgrade slots.

Ammunition Holder (Frame/Tactical) This accessory mounts on the frame or tactical mount of a rifle, carbine, SMG or shotgun to hold shells or cartridges for quick use. It can hold up to 8 shells or cartridges. Using an ammunition holder negates the necessity to reach into a pack to retrieve ammunition.

Secure-Clip (Frame) A secure-clip is a metal clip mounted on the frame of a handgun, allowing for Waistband carry without a chance of the firearm falling out from rough movement. While using a secure-clip a character does not have to roll a Reflex Saving Throw to catch their firearm while Waistband carrying it. Only Small or smaller firearms may use this upgrade.

Mounted Quiver (Frame) This accessory mounts a quiver onto the crossbow or bow to hold crossbow bolts or arrows for quick use. It can hold up to 5 crossbow bolts or arrows. Using a mounted quiver negates the necessity to reach into a pack to retrieve ammunition.

Tactical Flashlight (Tactical/Optics/Frame) This is a flashlight that attaches to a firearm. It comes in one of four styles:

- **Standard** This projects a beam of light in a 20' cone. It cost 2 WP less.
- **High Output** High output projects light out in a 50' cone in front of the firearm, as opposed to the standard 20' cone.
- **Light/Laser Combo** The light/laser combo has dual modes; one mode that projects light out in a 20' cone in front of the firearm, and the other mode that projects a standard laser. When using the laser, it is identical to a standard laser sight. Only one mode may be used at a time.
- **Strobe Output** Strobe has dual modes; one mode that projects light out in a 20' cone in front of the firearm, and the other mode that strobes the light to temporary blind. When any creature is within 20' of the light and is looking in its direction, they must make a Will Saving Throw [TN12] or be blinded for 1 round. This may only be attempted once per creature per combat.

Switching the light on or off, or changing modes costs 1 Combat Point. All tactical flashlights can be purchased with infrared or ultraviolet modes, increasing the WP cost by 2 per extra mode. When in infrared mode, the flashlight has its range multiplied by 6.

Vertical Foregrip (Frame/Tactical) This accessory offers a shooter more leverage than a standard foregrip. When gripped by the user while firing, it reduces the Recoil Penalty by 2.

Vertical Grippod (Frame/Tactical) This accessory offers a shooter less leverage than a standard foregrip, but comes with the added bonus of having a portable bipod in addition. When gripped by the user while firing without the bipod deployed, it reduces the Recoil Penalty by 1, and grants a +1 attack bonus on all single shot and potshot attacks. When deployed, it grants a +2 attack bonus and reduces the Recoil Penalty by 1 on all single shot, potshot, double tap, and burst fire attacks. This upgrade uses the same rules and requirements that a standard bipod has. It costs 4 Combat Points to deploy or retract the grippod. Only rifles, shotguns, SMGs, machine pistols, and machine guns may use this upgrade.

Angled Foregrip (Frame/Tactical) This accessory offers a shooter more leverage than a standard foregrip. When gripped by the user while firing, it grants a +2 attack bonus on all single shot and double tap attacks. Only rifles, shotguns, SMGs, and machine guns may use this upgrade.

Lanyard (None) This accessory is a coiled lanyard for handguns, that allows a character to always keep their handgun within reach if it's dropped or taken. The lanyard can stretch a maximum of 5' from the person or object it's attached to and can be used to retrieve or pull back the pistol if it is dropped or taken without dropping to kneeling or prone to pick it up. Only handguns and machine pistols may use this upgrade. This upgrade does not take up any upgrade slots.

Handgun Mount (Frame|Handgun/Tactical|Rifle) This accessory is a mount for a handgun to mount it on one of the tactical rails of a rifle. It allows for doublefire attacks, using the highest Combat Point cost for the attack. Mounting a handgun on the mount costs 12 Combat Points. Only rifles may use this upgrade, and only handguns may be mounted.

Pistol Bayonet (Tactical) This accessory is an escape knife attached to the tactical rail of a handgun. It may be removed or attached for 2 Combat Points, or used while still attached to the gun. Only handguns may use this upgrade.

Magazine Foregrip (Tactical) This accessory fits the tactical rail with a clip that may be slipped on and off, allowing the shooter to use a handgun magazine as a vertical foregrip, giving a shooter more leverage. Attaching a magazine from or to the grip costs 7 Combat Points. When a magazine is attached and gripped by the user while firing, it reduces the Recoil Penalty by 1. Only handguns and machine pistols may use this upgrade.

Upgrade	Available for	Loc	Cost	Time	Wt	Restr
Extra Rail	Any firearm, bow, or crossbow	—	2	2 hours	—	None
Taser Mount	Any rifle or SMG	T	18	12 CP	0.9	L
KAC Masterkey	Any rifle or SMG	T	15	12 CP	3.1	L
M26 MASS	Any rifle or SMG	T	22	12 CP	2.7	L
SIX12 Mounted	Any rifle or SMG	T	—	12 CP	3.4	L
Flamer	Any rifle, shotgun, or SMG	T	16	12 CP	1.9	L
Patrol Sling	Any rifle, shotgun, SMG, machine gun, or crossbow	—	1	5 min.	0.3	None
Shotgun Sling	Any shotgun	—	3	5 min.	0.6	None
Secure-Clip	Any Small or smaller firearm	F	2	25 min.	0.1	None
Tactical Sling	Any rifle, shotgun, SMG, machine gun, or crossbow	—	4	5 min.	0.5	None
Ammunition Holder	Any rifle, SMG or shotgun	F T	4	10 min.	0.2	None
Mounted Quiver	Crossbows and bows	F	2	10 CP	0.8	None
Tactical Flashlight	Any ranged weapon	F O T	4	5 min.	0.6	None
Vertical Foregrip	Any Medium or larger firearm	F T	5	5 min.	0.5	None
Vertical Grippod	Any rifle, shotguns, machine pistol, machine gun, or SMG	F T	9	5 min.	0.8	None
Angled Foregrip	Any rifle, shotguns, machine gun, or SMG	F T	5	5 min.	0.9	None
Lanyard	Any handgun or machine pistol	—	1	10 min.	0.1	None
Handgun Mount	See text	See text	20	10 min.	0.3	None
Pistol Bayonet	Any handgun	T	10	12 CP	0.5	None
Magazine Foregrip	Any handgun or machine pistol	T	8	5 min.	—	None

Table 159: Tactical Upgrades

Ammunition

Ammunition consists of the items required for ranged weapons to function.

Type	Cost
Spear gun Spears (5)	1
CO_2 Cartridges (40)	1
Taser Cartridge	2
Flamer Fuel Cartridge (2)	1
Flamethrower Fuel Canister	1
Ballistic Knife Blades	2
Tranquilizer Darts (10)	1
Flare Gun Flares(12)	1

Table 160: Equipment, Ammunition

Lead Ball Ammunition

Lead balls are simple round lead balls that is the ammunition for black powder firearms. They come in 200 round packs that weigh 2 lbs.

Caliber	Damage	Recoil	Cost
.31 Ball	2d3	+0	1
.36 Ball	2d4	-1	1
.44 Ball	2d6	-2	1
.52 Ball	2d8	-3	1
.58 Minié Ball	2d10	-4	2
.75 Ball	3d8	-5	3

Table 161: Equipment, Lead Ball Ammunition

Modern Muzzleloader Ammunition

Modern muzzleloader ammunition are .50 Caliber projectiles that are used in modern muzzleloading firearms. They come in 100 round packs that weigh 1 lbs.

Lead Bullets These are plain cast lead bullets with a rounded nose. They have no special rules.

Sabot Bullet These are lead bullets with a plastic sabot cast lead bullets with a rounded nose. When firing this ammunition, the range of the muzzleloader is increased by 30'.

Hollow Point Bullets These are bullets with a conical cavity in the nose of the bullet that "mushrooms" inside a target, transferring greater kinetic energy. Against targets not armored against ballistic damage, it provides a +4 damage bonus. Against targets armored against ballistic damage, it provides a −4 damage penalty.

Type	Cost	#/box	Restr
Lead Bullets	1	100	None
Sabot Bullets	2	100	None
Hollow Point Bullets	2	100	None

Table 162: Equipment, .50 Cal Muzzleloader Ammunition

.68 Paintball Ammunition

Paintball ammunition is used in paintball markers. Ammunition cost includes the propellant that paintball markers use.

Pepperball This ammunition is paintball capsules filled with OC chemical irritant. When hit, the target must make a Fortitude Saving Throw [TN15] or be blinded for 1d4 rounds. A gas mask or a MOPP suit renders the target immune to the effects and a wet cloth held over the eyes, nose, and mouth provides a +2 to the Fortitude Saving Throw. If a character is already blinded due to an effect that would be ineffective due to a gas mask, the original blinding effect is removed, and the new effect immediately takes place.

Pava Round This ammunition is paintball capsules filled with extra strength Pava chemical irritant. When hit, the target must make a Fortitude Saving Throw [TN20] or be blinded for 2d3 rounds. A MOPP suit renders the target immune to the effects. If a character is already blinded due to an effect that would be ineffective due to a gas mask, the original blinding effect is removed, and the new effect immediately takes place.

Marker This ammunition is paintball capsules filled with a highly visible, non-toxic food grade coloring. It leaves a splotch of paint on whatever it strikes. Marker ammunition is available in various colors.

Glass Breaker This ammunition is a hollow ball of nylon, used to break glass at a safe distance. It does 1d2 bludgeoning damage.

Self Defense This ammunition is a hard rubber ball used primarily as a self defense weapon. It does 1d3 non-lethal bludgeoning damage. The rounds are reusable, if collected.

Practice This ammunition is a soft rubber ball used to practice by both paintball players and law enforcement. It does no damage and the rounds are reusable, if collected.

Type	Cost	#/box	Restr
Pepperball	1	20	None
Pava Round	1	10	R
Marker	1	500	None
Glass Breaker	1	100	None
Self Defense	1	50	None
Practice	1	100	None

Table 163: Equipment, .68 Paintball Ammunition

18mm Less Lethal

18mm Less Lethal ammunition is used in the FN 303 series Less Lethal Launchers. Ammunition cost includes the propellant that Less Lethal Launchers use. A box of 18mm ammunition weighs 2.0 lb.

OC This ammunition is an 18mm capsules filled with OC chemical irritant. When hit, the target must make a Fortitude Saving Throw [TN19] or be blinded for 4d2 rounds. A gas mask or a MOPP suit renders the target immune to the effects and a wet cloth held over the eyes, nose, and mouth provides a +2 to the Fortitude Saving Throw. If a character is already blinded due to an effect that would be ineffective due to a gas mask, the original blinding effect is removed, and the new effect immediately takes place.

Marker This ammunition is an 18mm capsules filled with a high visible, non-toxic food grade coloring. It leaves a splotch of paint on whatever it strikes. Marker ammunition is available in various colors.

Impact This ammunition is an 18mm capsules filled with an inert powder. It does 2d8 non-lethal bludgeoning damage.

Type	Cost	#/box	Restr
OC	3	25	None
Marker	3	25	None
Impact	3	25	None

Table 164: Equipment, 18mm Less Lethal Ammunition

Crossbow Bolt Heads and Arrowheads

Crossbow bolts and arrowheads are used with bows and crossbows. A bundle of 20 arrows or crossbow bolts weighs 1.0 lb.

Fieldpoint These heads are the standard heads for arrows and crossbow bolts. They have no special rules.

Blunt These heads are rounded and made of plastic. They convert all damage to non-lethal bludgeoning damage.

Bodkin These heads are hardened and tapered for maximum penetration. They add +2 piercing damage dice.

Broadhead These heads are wide and sharpened for maximum damage upon impact. They add +1 slashing damage die.

Type	Cost/20	Weight/20
Fieldpoint	2	2.0
Blunt	2	2.0
Bodkin	4	2.1
Broadhead	5	2.2

Table 165: Equipment, Bolt & Arrowheads

Cased Ammunition

Cased ammunition is ammunition that uses a metal case to hold all of the components of the ammunition together, normally made of brass, steel, or aluminum. All calibers within a category have the same cost for the type of rounds listed.

Type	Cost	#/box	Restr
Rimfire			
FMJ	1	500	None
JHP	1	400	None
Match Grade	1	50	None
Tracer	1	100	None
Frangible	1	50	None
Blank	1	200	None
Light Rimless Handgun			
FMJ	1	50	None
Surplus	1	200	None
JHP	1	50	None
Frangible	1	10	None
Match Grade	1	25	None
Marker	1	50	None
Blank	1	50	None
Intermediate Rimless Handgun			
FMJ	1	100	None
Surplus	1	400	None
JHP	1	50	None
Ratshot	1	10	None
Frangible	1	25	None
Armor Piercing	1	5	M&P
Non-Lethal	1	20	None
Match Grade	1	25	None
Tracer	1	100	None
Marker	1	50	None
Blank	1	200	None
Heavy Rimless Handgun			
FMJ	1	50	None
Surplus	1	200	None
JHP	1	25	None
Ratshot	1	10	None
Frangible	1	25	None
Armor Piercing	1	5	M&P
Non-Lethal	1	20	None
Match Grade	1	25	None
Tracer	1	50	None
Blank	1	200	None
Semi-Wadcutter	1	50	None
Marker	1	50	None
Solid	1	5	None

Type	Cost	#/box	Restr
Light Rimmed Handgun			
FMJ	1	50	None
Surplus	1	100	None
JHP	1	30	None
Ratshot	1	10	None
Frangible	1	30	None
Armor Piercing	1	5	M&P
Tracer	1	50	None
Blank	1	100	None
SJHP	1	30	None
SJSP	1	30	None
Wadcutter	1	50	None
Semi-Wadcutter	1	50	None
Marker	1	50	None
Match Grade	1	25	None
Heavy Rimmed Handgun			
FMJ	1	50	None
Surplus	1	100	None
JHP	1	20	None
Ratshot	1	10	None
Frangible	1	20	None
Armor Piercing	1	5	M&P
Tracer	1	50	None
Blank	1	100	None
SJHP	1	20	None
SJSP	1	20	None
Wadcutter	1	50	None
Semi-Wadcutter	1	50	None
Solid	1	5	None
Marker	1	50	None
Match Grade	1	25	None
Light Rifle			
FMJ	1	40	None
Surplus	1	160	None
JHP	1	20	None
Tracer	1	40	None
Blank	1	100	None
Armor Piercing	1	10	M&P
Match Grade	1	20	None
Marker	1	20	None
SJSP	1	20	None
Intermediate Rifle			
FMJ	1	40	None
Surplus	1	160	None
JHP	1	20	None
Solid	1	10	None
Frangible	1	20	None
Incendiary	1	5	M&P
Armor Piercing	1	10	M&P
Match Grade	1	20	None
Tracer	1	40	None
Blank	1	100	None
Marker	1	20	None
SJSP	1	20	None

Type	Cost	#/box	Restr
Heavy Rifle			
FMJ	1	20	None
Surplus	1	100	None
JHP	1	20	None
Frangible	1	20	None
Match Grade	1	10	None
Incendiary	1	10	M&P
Armor Piercing	1	10	M&P
Tracer	1	20	None
Blank	1	100	None
SJSP	1	20	None
Exploding	1	5	M&P
Marker	1	20	None
Solid	1	5	None
Super Heavy Rifle			
FMJ	1	10	None
Surplus	1	40	None
JHP	1	10	None
Match Grade	1	5	None
Incendiary	1	5	M&P
Armor Piercing	1	5	M&P
Blank	1	20	None
Exploding	1	1	M&P
Solid	1	5	None

Cased Ammunition Categories

Rimfire Ammunition
A box of rimfire ammunition weighs 0.4 lb per 50 rounds.

Caliber	Damage	Recoil Mod	Craft Category
.41 Rimfire	1	+0	2nd
.22 Short	1d2	+0	2nd
.22 Long Rifle	1d4	+0	2nd
.32 Rimfire	2d3	+0	2nd
.17 HMR	1d4+2	-1	2nd
.22 WMR	2d4+2	-2	2nd
.44 Henry	2d6+1	-2	2nd

Table 166: Rimfire Ammunition

Light Rimless Handgun Ammunition
A box of light rimless handgun ammunition weighs 0.5 lb per 50 rounds.

Caliber	Damage	Recoil Mod	Craft Category
.25 ACP	1d3	+0	2nd
.32 ACP	1d6	-1	2nd
7.65mm Longue	1d4+2	-1	3rd

Table 167: Light Rimless Ammunition

Intermediate Rimless Handgun Ammunition
A box of intermediate rimless handgun ammunition weighs 0.6 lb per 50 rounds.

Caliber	Damage	Recoil Mod	Craft Category
.380 ACP	2d4	-1	2nd
8x22mm Nambu	2d4	-1	2nd
9x18mm PM	2d4+1	-1	3rd
.30 Super Carry	2d6–1	-2	3rd
9x19mm	2d6	-2	3rd
.40 S&W	3d4	-3	3rd
.38 ACP	2d6+1	-2	3rd
.38 Super	3d4+3	-4	3rd
7.63x25mm Mauser	2d8	-3	4th
.22 TCM	2d3+3	-1	4th
7.63mm Mannlicher	1d6+4	-3	5th
.357 SIG	2d6+2	-3	5th
7.62x25mm Tokarev	2d8+2	-4	5th
9x23mm Steyr	2d6+3	-3	4th

Table 168: Intermediate Rimless Ammunition

Heavy Rimless Handgun Ammunition
A box of heavy rimless handgun ammunition weighs 0.9 lb per 50 rounds.

Caliber	Damage	Recoil Mod	Craft Category
.45 ACP	3d4+2	-4	4th
.45 GAP	3d4+2	-4	4th
10mm Auto	2d6+4	-4	5th
.44 AMP	3d6	-4	5th
.45 Winchester Magnum	3d6+1	-4	5th
.50 GI	5d3+2	-5	5th
.475 Wildey Magnum	3d6+5	-6	5th
.460 Rowland	4d4+2	-5	6th
.50 Action Express	3d6+2	-5	6th

Table 169: Heavy Rimless Ammunition

Light Rimmed Handgun Ammunition
A box of light rimmed handgun ammunition weighs 0.6 lb per 50 rounds.

Caliber	Damage	Recoil Mod	Craft Category
.38 Long Colt	1d4	+0	3rd
.38/200	1d4+3	-1	3rd
.38 S&W	1d4+3	-1	3rd
.38 Special	2d4+1	-1	3rd
.476 Enfield	1d4	+0	4th
9mm Japanese Revolver	1d6+2	-2	4th
7.62x38mmR	1d8+2	-3	4th
.32 S&W Long	1d4+1	+0	3rd
.32 H&R Magnum	1d8+3	-3	4th

Table 170: Light Rimmed Ammunition

Heavy Rimmed Handgun Ammunition
A box of heavy rimmed handgun ammunition weighs 1.0 lb per 50 rounds.

Caliber	Damage	Recoil Mod	Craft Category
.44 American	1d6+3	-2	4th
.44 Russian	1d6+3	-2	4th
.45 Schofield	2d4+3	-2	4th
.327 Federal Magnum	2d6+1	-2	4th
.45 Long Colt	2d6+3	-3	4th
.41 Long Colt	3d4+1	-3	4th
.455 Webley	3d4+1	-3	4th
.357 Magnum	3d4+3	-4	4th
.32-20 Winchester	1d10	-3	5th
.44 Special	1d6+6	-4	5th
.38-40 Winchester	1d6+5	-3	5th
.44-40 Winchester	1d10+5	-5	5th
.44 Magnum	3d6	-4	5th
.454 Casull	3d6+5	-6	6th
.500 S&W Special	5d6+4	-8	6th
.500 Wyoming Express	4d6+2	-6	7th
.500 S&W Magnum	7d6	-9	7th

Table 171: Heavy Rimmed Ammunition

Light Rifle Ammunition
A box of light rifle ammunition weighs 0.3 lb per 20 rounds.

Caliber	Damage	Recoil Mod	Craft Category
.17 Remington	2d6	-2	2nd
4.6x30mm	3d4–1	-3	5th
5.7x28mm	3d4–1	-3	5th

Table 172: Light Rifle Ammunition

Intermediate Rifle Ammunition
A box of intermediate rifle ammunition weighs 0.5 lb per 20 rounds.

Caliber	Damage	Recoil Mod	Craft Category
.30 Carbine	3d6+1	-4	6th
5.45x39mm	4d4+2	-5	7th
5.8x42mm	5d4	-5	7th
5.56x45mm	5d4	-5	7th
9x39mm	4d4+4	-6	8th
6mm Lee Navy	5d4+2	-6	8th
6.8mm Remington SPC	5d4+3	-6	9th

Table 173: Intermediate Rifle Ammunition

Heavy Rifle Ammunition
A box of heavy rifle ammunition weighs 0.8 lb per 20 rounds.

Caliber	Damage	Recoil Mod	Craft Category
6.5 Creedmoor	6d4	-7	8th
6.5x50mm Arisaka	4d6	-5	7th
7.92x33mm Kurz	3d8	-5	7th
.243 Winchester	4d6+2	-6	7th
.300 AAC Blackout	4d6	-5	8th
.30-30 Winchester	4d6+1	-5	8th
6.5mm Grendel	4d6+1	-5	8th
6.5x52mm Carcano	4d6+2	-6	8th
7.62x39mm	4d6+2	-6	8th
.280 British	4d6+3	-6	8th
7.5x54mm French	4d6+4	-7	8th
7.62x51mm	5d6	-6	8th
8mm Lebel	5d6+1	-6	8th
7x57mm Mauser	5d6+2	-7	8th
7.62x54mmR	5d6+2	-7	8th
.303 British	5d6+3	-7	8th
.30-40 Krag	5d6+4	-8	8th
7.7x58mm Arisaka	5d6+4	-8	8th
7.5x55mm Swiss	5d6+4	-8	8th
7.92x57mm Mauser	5d6+5	-8	8th
.30-06 Springfield	6d6	-8	8th
.56-56 Spencer	2d10+5	-6	9th
.45-70 Government	3d10	-6	9th
.50-70 Government	3d10+5	-8	9th
.458 SOCOM	3d12	-7	9th

Table 174: Heavy Rifle Ammunition

Superheavy Rifle Ammunition
A box of super heavy rifle ammunition weighs 1.9 lb per 20 rounds.

Caliber	Damage	Recoil Mod	Craft Category
.300 Winchester Magnum	7d6	-9	9th
.338 Lapua Magnum	7d8	-10	9th
7.92x94mm	7d8	-10	10th
.50 BMG	10d8	-16	10th
12.7x108mm	10d8	-16	10th
13.9x99mmB	12d8	-19	11th
14.5x114mm	10d10	-17	11th
20x102mm	12d10	-20	11th
20x105mm	12d10	-20	11th
20x125mm	12d10	-20	11th

Table 175: Superheavy Rifle Ammunition

Cased Ammunition Types

Full Metal Jacket (FMJ) This ammunition consists of lead bullets encased in a metal casing. This is the standard ammunition for all firearms. It has no special rules.

Surplus This ammunition consists of plain lead bullets that lack the quality of modern manufacturing. Quantity has a quality all its own. It provides +30% error range.

Jacketed Hollow Point (JHP) This ammunition contains a conical cavity in the nose of the bullet that "mushrooms" inside a target, transferring greater kinetic energy. Against targets not armored against ballistic damage, it provides a +2 damage bonus plus +1 damage bonus per damage dice over 3. Against targets armored against ballistic damage, it provides a –2 damage penalty plus –1 damage penalty per damage dice over 3.

Semi Jacketed Hollow Point (SJHP) This ammunition contains a conical cavity in the nose of the bullet that "mushrooms" in a target, transferring greater kinetic energy, but the metal jacket extends about halfway up the bullet, exposing the bare lead underneath. It provides a +15% error range. Against targets not armored against ballistic damage, it provides a +1 damage bonus per damage dice. Against targets armored against ballistic damage, it provides a –1 damage penalty per damage dice.

Semi Jacketed Soft Point (SJSP) This ammunition is a bullet that has the metal jacket that extends about halfway up the bullet, exposing the bare lead underneath. It provides a +15% error range. Against targets not armored against ballistic damage, it provides a +1 damage damage die. Against targets armored against ballistic damage, it provides a –1 damage damage die.

Armor Piercing This ammunition is specifically constructed to pierce armor. It provides –1 ballistic damage die. When attacking targets that are armored or have natural armor against ballistic damage, it provides +2 ballistic piercing damage dice, plus +1 ballistic piercing damage dice per 2 damage dice over 2.

Incendiary This ammunition contains a compound that burns rapidly and causes fires. It provides +1 fire damage die and +10% error range.

Frangible This ammunition is designed not to pierce solid surfaces such as schoolhouse walls or aircraft bulkheads. It provides a –4 damage penalty against armored targets and a +3 damage bonus against unarmored targets. Any object with a Hardness of 2 or greater immediately defeats this ammunition.

Non-Lethal This ammunition consists of a rubber bullet. Converts all damage to non-lethal ballistic damage, and only deals damage within the first two range increments.

Match Grade This ammunition is of high quality, used for competition target shooting and precision sniping. This ammunition provides bonuses when when used with a match barrel or precision barrel. It provides a –5 damage penalty.

Tracer This ammunition leaves a string of light when fired, allowing for correcting when firing multiple shots. It provides a +1 attack bonus for all multi-shot attack rolls as long as 50% of the fired rounds are tracers.

Blank This ammunition lacks any projectile, simply creating a loud bang and muzzle flash, often used for rifle grenades. It converts all damage to no damage and provides a 50% error range. If blank ammunition makes up more than one-fifth of the rounds fired, the firearm's attack does no damage.

Wadcutter This ammunition is a special-purpose flat-nosed bullet specially designed for shooting paper targets, usually at close range. It provides +30% error range and –50% range increment, rounded up. Against targets not armored against ballistic damage, it provides +4 damage plus a +2 damage bonus per damage dice within the first range increment. Against targets armored against ballistic damage, it provides –4 damage plus a –2 damage penalty per damage dice within the first range increment.

Marker This ammunition is a special-purpose frangible plastic bullet with a small amount of non-toxic paint within it's center, used for force-on-force training with full recoil but no danger. It converts all damage to no damage, and will only successfully hit targets within the firearm's first four range increments.

Semi-wadcutter This ammunition is a compromise between the wadcutter and FMJ ammunition, featuring the sharp edges of a wadcutter, with the slightly tapered nose of a FMJ bullet. It provides +10% error range and –30% range increment, rounded up. Against targets not armored against ballistic damage, it provides +2 damage dice within the first two range increments. Against targets armored against ballistic damage,it provides –2 damage dice within the first two range increments.

Exploding This ammunition is a bullet that has a small cavity filled with low explosives within the tip, designed to go off once it impacts something hard, such as bone. It grants +1 additional damage dice of concussion damage that affects the target's CHP immediately and +10% error range.

Solid This ammunition is a bullet machined out of a solid piece of metal, usually copper or brass. It provides a +6 damage bonus and a +3 damage bonus per 2 damage dice over 3, increases the recoil penalty by 1 per damage dice over 2, and a +25% error range.

Ratshot This ammunition is a bullet with a plastic cap filled with birdshot, turning any firearm loaded with it into an impromptu shotgun. It grants a –8 damage penalty and a +2 attack bonus, but is only effective for 50'.

Shell Ammunition

Shell ammunition is ammunition that uses a plastic, brass, or paper shell to hold all of the components of the ammunition together. All calibers within a category have the same cost for the type of rounds listed.

Type	Cost	#/box	Restr
Light Shotshell			
00 Buckshot	1	25	None
#4 Buckshot	1	25	None
#6 Birdshot	1	40	None
#3 Birdshot	1	20	None
Non-Lethal, rock salt	1	50	None
Slug	1	10	None
Frangible 00 Buckshot	1	10	None
Frangible #3 Birdshot	1	20	None
Saboted Slug	1	10	None
Wax Slug	1	20	None
Marker 00 Buckshot	1	25	None
Marker Slug	1	25	None
Blank Shell	1	20	None
AP Shell	1	2	M&P
Intermediate Shotshell			
00 Buckshot	1	25	None
#4 Buckshot	1	30	None
#9 Birdshot	1	100	None
#6 Birdshot	1	100	None
#3 Birdshot	1	100	None
Non-Lethal, beanbag	1	5	None
Non-Lethal, rubber ball	1	20	None
Non-Lethal, rock salt	1	200	None
Slug	1	20	None
OC Shell	1	10	R
Saboted Slug	1	10	None
Blank Shell	1	20	None
Tracer	1	10	None
Taser	1	5	R
Frangible 00 Buckshot	1	5	None
Frangible #6 Birdshot	1	10	None
Frangible #3 Birdshot	1	10	None
Breaching	1	5	None
Exploding	4	1	M&P
Flamethrower	2	3	None
Flare	1	3	None
Stun	1	2	R
Magnum 00 Buckshot	1	10	None
Magnum #4 Buckshot	1	10	None
Magnum #9 Birdshot	1	50	None
Magnum #6 Birdshot	1	25	None
Magnum #3 Birdshot	1	15	None
Magnum Slug	1	5	None
Mini 00 Buckshot	1	25	None
Mini Slug	1	25	None
Marker 00 Buckshot	1	25	None
Marker Slug	1	25	None
Wax Slug	1	25	None
AP Shell	1	2	M&P
Flechette	1	5	None

Type	Cost	#/box	Restr
Heavy Shotshell			
00 Buckshot	1	25	None
#4 Buckshot	1	30	None
#9 Birdshot	1	100	None
#6 Birdshot	1	50	None
#3 Birdshot	1	25	None
Slug	1	20	None
Magnum 00 Buckshot	1	10	None
Magnum #4 Buckshot	1	10	None
Magnum #9 Birdshot	1	50	None
Magnum #6 Birdshot	1	25	None
Magnum #3 Birdshot	1	15	None
Magnum Slug	1	5	None

Shell Ammunition Categories

Light Shotshell Ammunition
A box of light shotshells weighs 0.4 lb per 25 rounds.

Caliber	Damage	Caliber Recoil Mod	Craft Category
.410 Bore	3d4+1	-3	1st

Table 176: Light Shotshell Ammunition

Intermediate Shotshell Ammunition
A box of intermediate shotshells weighs 0.6 lb per 25 rounds.

Caliber	Damage	Caliber Recoil Mod	Craft Category
20 Gauge	4d6	-5	1st
16 Gauge	4d6+3	-6	1st
12 Gauge	5d6	-6	1st

Table 177: Intermediate Shotshell Ammunition

Heavy Shotshell Ammunition
A box of heavy shotshells weighs 0.8 lb per 25 rounds.

Caliber	Damage	Caliber Recoil Mod	Craft Category
10 Gauge	7d6	-9	1st

Table 178: Heavy Shotshell Ammunition

Shell Ammunition Types

00 Buckshot This ammunition consists of .33 caliber heavy lead balls fired simultaneously from a single shell. It has no special rules.

#4 Buckshot This ammunition consists of .24 caliber heavy lead balls fired simultaneously from a single shell. It is weaker than buckshot, but still an effective defensive load. It grants a +1 attack bonus and a –2 damage penalty.

Birdshot This ammunition is similar in design to buckshot, except that the pellets are much smaller and more numerous. Different sizes of shot provide different bonuses and penalties.

#9 Birdshot Provides a +6 attack bonus and –3 damage dice.

#6 Birdshot Provides a +4 attack bonus and –2 damage dice.

#3 Birdshot Provides a +2 attack bonus and –1 damage die.

Slug This ammunition consists of a single massive cylinder of lead. It provides a –2 attack penalty and +2 damage dice.

Wax Slug This ammunition consists of birdshot that has been solidified in wax. It grants +1 damage die, but the range increment penalty is doubled. It cannot take the benefits of a slug barrel.

Saboted Slug This ammunition increases a shotgun's range. This ammunition multiples a shotgun's range increment by 1.5 rounded up to the nearest 5', and provides +1 damage die.

Armor Piercing Slug This ammunition is specifically constructed to pierce armor. It provides a –2 attack penalty, and when attacking targets that are armored or have natural armor to ballistic damage, it provides –1 ballistic damage die, but also provides +2 ballistic piercing damage dice, plus +1 ballistic piercing damage dice per 2 damage dice over 2.

Magnum This ammunition is comprised of larger shells that allow for more powder and shot. Different sizes of shot provide different bonuses and penalties, but still retain any non bonus or penalty benefits and properties that come with the ammunition. All modern-day shotguns with internal magazines can chamber magnum shells, but when using it with any shotguns with an internal magazine above 3, they lose 1 round of capacity per 3 when using magnum ammunition.

00 Buckshot Provides a +1 damage die, a +3 damage bonus and increases the Recoil Penalty by 2.

#4 Buckshot Provides a +1 attack bonus, a +1 damage bonus and increases the Recoil Penalty by 2.

#9 Birdshot Provides a –3 damage dice, a +6 attack bonus, a +2 damage bonus, and increases the Recoil Penalty by 2.

#6 Birdshot Provides a –2 damage dice, a +4 attack bonus, a +3 damage bonus, and increases the Recoil Penalty by 2.

#3 Birdshot Provides a –1 damage die, a +2 attack bonus, a +4 damage bonus, and increases the Recoil Penalty by 2.

Slug Provides a +2 damage dice, a –2 attack penalty, a +6 damage bonus, and increases the Recoil Penalty by 3.

Mini This ammunition is comprised of smaller shells that allow for more shells to be placed in a shotgun tube, at the cost of both powder and shot. Different sizes of shot provide different bonuses and penalties, but still retain any non bonus or penalty benefits and properties that come with the ammunition. All modern-day shotguns with internal magazines can chamber mini shells, but when using it with any shotguns with an internal magazine above 3, they gain 1 round of capacity per 3 when using mini ammunition.

00 Buckshot Provides a –5 damage penalty, reduces the Recoil Penalty by 2 and provides a +25% error range.

Slug Provides a +1 damage dice, a –2 attack penalty, reduces the Recoil Penalty by 3, and provides a +25% error range.

Non-lethal This ammunition converts all damage to non-lethal ballistic damage and provides a +20% error range increase

Rubber Ball This shot consists of eight rubber balls and has no special rules.

Beanbag Provides a –2 attack penalty and +2 damage dice.

Rock salt Provides a +1 attack bonus and –3 damage dice.

Stun Ammunition This ammunition is a shotgun-launchable flashbang shell, that works exactly like its thrown counterpart. It has a maximum range of 45' and a blast radius of 15'. Any target caught in the blast must make a Will Saving Throw [TN16] or be blinded for 1d4 rounds, and a Fortitude Saving Throw [TN16] to avoid being deafened for 1d4 rounds. It provides a +55% error range.

Frangible This ammunition is designed not to pierce solid surfaces, such as schoolhouse walls or aircraft bulkheads. It provides a +20% error range, regardless of the type of shot. Any object with a hardness of 2 or greater immediately defeats this ammunition. It comes in various shot configurations

#6 Birdshot Provides a +4 attack bonus, a –12 damage penalty against armored targets, and a +1 damage bonus against unarmored targets.

#3 Birdshot Provides a +2 attack bonus, a –9 damage penalty against armored targets, and a +3 damage bonus against unarmored targets.

00 Buckshot Provides a –6 damage penalty against armored targets and a +6 damage bonus against unarmored targets.

Marker This ammunition is a special-purpose frangible plastic projectiles with a small amount of non-toxic paint within it's center, used for force-on-force training with full recoil but no danger. It converts all damage to no damage, and will only successfully hit targets within the firearm's first four range increments.

00 Buckshot Provides no damage.

Slug Provides no damage.

Blank This ammunition lacks any projectile, simply creating a loud bang and a muzzle flash. It converts all damage to no damage and provides a +40% error range. If blank ammunition makes up more than one-fifth of the rounds fired, the firearm does no damage.

Breaching This ammunition is specially made for the purposes of door breaching. These shells contain a metallic powder that disperses on contact. When fired at an object it ignores 10 points of hardness, provides –2 damage dice, and +30% error range. They have a maximum range of 20'.

Flechette This ammunition is a bundle of flechette darts packed into a shell. When fired, the flechettes rip and shred their target. It converts all ballistic damage to piercing damage.

Tracer This ammunition leaves a string of light when fired, allowing for corrections when firing multiple shots. It provides a +1 attack bonus for all multi-shot attack rolls as long as 50% of the fired rounds are tracers.

Exploding This ammunition is a small shotgun grenade that works like a small grenade launcher grenade. When fired at an object it ignores 6 points of hardness. It provides a –1 attack penalty and –1 damage die, but all damage is converted to concussion damage and it affects a 5' blast radius.

OC Shell A shell that consists of tightly packed irritant powder. It shoots a 5-foot wide, 20-foot long line of OC powder that causes all those caught in the blast to make a Fortitude Saving Throw [TN15] or be blinded for 1d4 rounds. A MOPP suit renders the target immune to the effects. If a character is already blinded due to an effect that would be ineffective due to a gas mask, the original blinding effect is removed, and the new effect immediately takes place. No attack roll is necessary. A gas mask renders the target immune to the effects and a wet cloth held over the eyes, nose, and mouth provides a +2 bonus to the Fortitude Saving Throw. It provides a +50% error range.

Flamethrower A shell that consists of tightly packed magnesium powder. It shoots a 5-foot wide, 20-foot long line of flame that deals 2d6 points of fire damage to all creatures and objects in its path. No attack roll is necessary. A flamethrower shell can also ignite flammable material and fluids. Any creature caught in the line of flame can make a Reflex Saving Throw [TN15] to take half damage. It provides a +50% error range.

Flare A flare that illuminates a 30' radius as if it were lit by daylight for 7 rounds. When used as a signal, a flare round may be spotted at a distance of 3 miles with a successful Perception check, [TN20] during the day or [TN15] at night. A flare may also be used as a weapon, with a maximum range of 30' and the potential to do 2d4 fire damage. Anyone shot with a flare round must make a Reflex Saving Throw [TN18] or be caught on fire. A flare shell can also ignite flammable material and fluids. This ammunition provides a +45% error range.

Taser A miniaturized taser unit packed into a shell that releases a powerful electrical current on impact. On a successful hit the shell deals 1d3 electricity damage and 1 non-lethal ballistic damage die. The target must make a Fortitude Saving Throw [TN15] or be paralyzed for 1d6 rounds.

Grenade Ammunition Types

Fragmentation

The most common type of launched grenade. Uses a small explosive charge to fling shards of metal in all directions. Any target caught in the blast must make a Fortitude Saving Throw [TN18] or be knocked prone.

High Explosive (HE)

These grenades are packed with a shaped charge that detonates on impact, intended for use against armored targets and buildings. Any target caught in the blast must make a Fortitude Saving Throw [TN12] or be knocked prone An HE grenade ignores 15 points of hardness.

High Explosive Dual Purpose (HEDP)

These grenades combine high explosive and fragmentation grenades and are suitable for use on armored or soft targets. An HEDP grenade ignores 10 points of hardness. Any target caught in

the blast must make a Fortitude Saving Throw [TN14] or be knocked prone.

Tear Gas

These grenades are used to disperse crowds and smoke out hostage takers. When the grenade is launched, a tear gas grenade fills all squares within 10' with tear gas and on the second round it fills all squares within 15' with tear gas. Any target caught in the cloud of tear gas must make a Fortitude Saving Throw [TN15] or be blinded and stunned for 2d4 rounds. A gas mask or a MOPP suit renders the target immune to this effect, and a wet cloth held over the eyes, nose, and mouth provides a +2 to the Fortitude Saving Throw. The tear gas disperses after 10 rounds

Smoke

These grenades create smoke to serve as signals or concealment. When the grenade strikes a hard surface, it bursts and fills all squares within 15' with smoke. On the following round it fills all squares within 20' and on the third round it fills all squares within 25'. The smoke obscures all sight, including night vision goggles. Anyone within the area has total concealment. It disperses after 10 rounds. Smoke grenades are available in several colors including white, red, yellow, green, blue, orange, and purple.

Beehive

These grenades fire a bundle of flechette darts that rip and shred their target. Beehive grenades have a –2 damage penalty for every range increment. This grenade must be used against a specific target, and does not gain the bludgeoning damage or incur the attack penalty from normally firing a grenade at a target.

Foam Slug

These grenades consists of a large foam slug, used when non-lethal force is necessary. This grenade must be used against a specific target and does not gain the extra bludgeoning damage or incure the attack penalty from normally firing a grenade at a target, and deals non-lethal bludgeoning damage.

Buckshot

These grenades fire a bundle of buckshot rounds that penetrate the target, turning the grenade launcher into a large shotgun. Has the same damage penalty for range as shotguns. This grenade must be used against a specific target, and does not gain the bludgeoning damage or incur the attack penalty from normally firing a grenade at a target.

Flare

These grenades illuminates a 60' radius as if it were lit by daylight for 10 rounds. When used as a signal, a flare round may be spotted at a distance of 5 miles with a successful Perception check [TN20] during the day or [TN15] at night. Anyone shot with a flare round must make a Reflex Saving Throw [TN18] or be caught on fire. A flare round can also ignite flammable material and fluids. Does not gain the bludgeoning damage or incur the attack penalty from normally firing a grenade at a specific target.

Hornet's Nest

An insert that holds 10 .22 Long Rifle rounds that all get fired at once, working somewhat like a more lethal buckshot grenade. Can be refilled and reused. Only usable with 40x46mm launchers. This grenade must be used against a specific target, and does not gain the bludgeoning damage or incur the attack penalty from normally firing a grenade at a target.

Taser

These are an upscaled version of taser shells capable of being fired from a standalone or underbarrel grenade launcher. Designed for military use, they easily outrange the standard taser offerings allowing for a long distance takedown. On a successful hit, the darts deal electricity damage and the target must make a Fortitude Saving Throw [TN20] or be paralyzed for 2d4 rounds. Only usable with 40x46mm launchers. This grenade must be used against a specific target and does not gain the bludgeoning damage or incur the attack penalty from normally firing a grenade at a target.

Airburst

These grenades are fused to explode before they hit the ground, thereby causing the maximum amount of damage to soft targets.

Thermobaric

These grenades are a fuel-air explosive, that use the surrounding air in order to keep the fire and explosion running. Anything caught in the burst radius of the explosion is immediately set on fire.

Grapnel

These grenades come with 120' of paracord, and a hook built into the grenade. These grenades can fire 80' straight up, or 120' at a specific target or square.

Rocket Launcher Ammunition Types

High Explosive Anti Tank (HEAT)

These rockets are packed with a shaped charge, that when impacted, destroy armored targets and buildings. A HEAT rocket ignores 20 points of Hardness.

High Explosive Dual Purpose (HEDP)

These rockets are packed with a shaped charge as well as fragmentation shrapnel, allowing them a dual purpose use against both armor and personnel. A HEDP rocket ignores 15 points of Hardness.

Fragmentation

These rockets are packed with fragmentation shrapnel, primarily focused around eliminating personnel.

Thermobaric

These rockets are a fuel-air explosive, that use the surrounding air in order to keep the fire and explosion running. Anything caught in the burst fire radius of the explosion is immediately set on fire.

Grenade Type	Damage	Damage Type	Blast Radius	Wound Radius	Rng.	Sz.	Wt.	Cost	Restr.
Fragmentation	5d6	Slashing	20'	40'	—	T	1.0	6	M&P
High Explosive	10d6	Concussion	15'	30'	—	T	1.0	10	M&P
HEDP	7d6	Slashing/Concussion	20'	40'	—	T	1.0	8	M&P
Tear Gas	Special	Special	Special	—	—	T	1.0	5	M&P
Smoke	—	—	Special	—	—	T	0.8	2	L
Beehive	8d6	Slashing	—	—	20'	T	1.0	8	M&P
Foam Slug	4d6	Bludgeoning (Non-lethal)	—	—	—	T	0.5	9	M&P
Buckshot	3d10	Ballistic	—	—	25'	T	0.9	4	M&P
Flare	2d4	Fire	—	—	60' Max	T	1.0	1	L
Hornet's Nest	6d4	Ballistic	—	—	10'	T	1.3	25	M&P
Taser Grenade	2d6	Electric	—	—	—	T	1.3	34	M&P
Airburst	6d8	Slashing	25'	50'	—	T	1.0	14	M&P
Thermobaric	4d6	Concussion/Fire	30'	60'	—	T	1.0	10	M&P
Grapnel	—	—	—	—	—	T	2.8	15	L

Table 179: Equipment, Grenade Ammunition

Rocket Type	Damage	Damage Type	Blast Radius	Wound Radius	Sz	Wt	Cost	Restr
HEAT	19d12	Concussion	10'	20'	M	5.7	23	M&P
HEDP	22d12	Concussion/Slashing	15'	30'	M	7.2	34	M&P
Fragmentation	10d12	Slashing	20'	40'	M	4.0	18	M&P
Thermobaric	13d12	Fire	25'	50'	M	9.9	30	M&P

Table 180: Equipment, Rocket Ammunition

Mortar Ammunition Types

High Explosive (HE)

These shells are packed with a shaped charge, that when impacted, destroy armored targets and buildings. A HE shell ignores 35 points of Hardness.

Smoke

These shells create smoke to serve as signals or concealment. When the mortar strikes a hard surface, it bursts and fills all squares within 20' with smoke. On the following round it fills all squares within 25', and on the third round it fills all squares within 30'. The smoke obscures all sight, including night vision goggles. Anyone within the area has total concealment. It disperses after 10 rounds. Smoke shells are available in several colors, including white, red, yellow, green, blue, orange, and purple.

Airburst

These mortars are fused to explode before they hit the ground, thereby causing the maximum amount of damage to soft targets.

Ammunition Modifications and Reloading

Ammunition can be purchased in a multitude of ways: Refer to the below information for the various ways and styles of how ammunition can be purchased.

Linked This ammunition upgrade links ammunition to be fired by weapons that used linked ammunition. Any cased ammo may be linked. The price listed is for 100 rounds of any ammunition.

Low Pressure This ammunition loading is ammunition with a reduced propellant charge to improve their performance with suppressors and quiet their report. It provides a –1 damage penalty per damage dice the caliber has and reduces the recoil penalty by 1 per damage dice the caliber has. This is calculated after any increase or decrease of damage dice due to ammunition type. It also provides a reduction to the Perception check to hear the weapon when used with a suppressor, and +25% error range. Any cased ammunition may be purchased as low pressure.

Standard Pressure This ammunition loading loads the ammunition to its standard pressure for the caliber. It provides no rules changes to damage or recoil. When purchasing ammunition in boxes, these are the rounds normally purchased.

High Pressure This ammunition upgrade loads the ammunition to a slightly higher internal pressure than standard for the ammunition of its caliber. It provides a +1 damage bonus per damage dice the caliber has and increases the recoil penalty by 1 per damage dice the caliber has. This is calculated after any increase or decrease of damage dice due to ammunition type. Any cased ammunition may be purchased as high pressure.

Over Pressure This ammunition upgrade loads the ammunition to a much higher internal pressure than standard for the ammunition of its caliber. It provides a +3 damage bonus per damage dice the caliber has, increases the recoil penalty by 2 per damage dice the caliber has, and +20% error range. This is calculated after any increase or decrease of damage dice due to ammunition type. If a

Mortar Type	Damage	Damage Type	Blast Radius	Wound Radius	Sz	Wt	Cost	Restr
High Explosive	20d6	Concussion/Fire	30'	60'	S	2.0	100	M&P
Smoke	—	—	Special	—	S	2.0	80	M&P
Airburst	18d6	Concussion/Slashing	45'	90'	S	2.0	120	M&P

Table 181: Equipment, Mortar Ammunition

character's firearm jams, it explodes, causing 1d6 slashing damage to the user and completely destroying the firearm. The explosion affects all firearms unless otherwise noted that it will not explode due to over pressure ammunition. Any cased ammunition may be purchased as over pressure.

Type	Cost Increase	Time	Restr
Linked	2 per 100 rounds	30 minutes	None
Low Pressure	1 WP per Box	—	None
Standard Pressure	—	—	—
High Pressure	1 WP per Box	—	
Over Pressure	2 WP per Box	—	None

Table 182: Equipment, Ammunition Modifications

Reloading

Reloading is the act of creating complete ammunition from components. A single round of ammunition has four parts: the casing, the primer, the powder, and the payload.

Casing and Hull The casing is the part of the ammunition that holds all of the components together. This is the piece that is ejected after it is fired, and can be used again, if it is undamaged. The casing for cased ammunition is usually composed of brass, or less frequently, aluminum or steel. The hull for shelled ammo is usually composed of plastic or paper, though brass shells also exist.
Shotgun shells can be loaded in mini, standard, and magnum configurations, but only the currently existing gauges that have a mini or magnum loading can be constructed through reloading.

Primer The primer is a small metal cup containing the primary explosive for the round of ammunition. When the firing pin strikes the primer, it ignites the explosive, which in turn ignites the powder and sends the payload on its way. Primers are a one-time use object, but are generally inexpensive. There are certain types of ammunition where the primer is actually embedded in the casing. These types of ammo are unreloadable, as they require massive, complex manufacturing equipment.

Powder The powder is the main explosive for ammunition, and is the explosive that propels the bullet down the barrel of a firearm. Powder spans from the archaic black powder, still in use by some handloaders, to modern smokeless powder which is used in nearly all modern ammunition. Since the powder is burnt up when the ammunition is fired, it is impossible to reuse (as there isn't any to reuse).

Payload

The payload is the object fired from the firearm, which can range from plain lead bullets to rubber buckshot. The payload is almost always destroyed or deformed too much to be reusable, if it can even be found.

Creating a batch of ammunition requires a full batch of each component, and the amount created in every batch is dependent on the type of ammunition created. It takes about 4 hours to create a batch of ammunition. If a character fails the Craft check the ammunition is still made, but for every point below the Craft TN, 10% of the ammunition is unusable and unrecoverable and should be thrown out. If any of this ammunition is used, the firearm will explode, dealing the caliber's damage to the user and destroying the firearm in the process. Cased ammunition can be loaded to Low Pressure, Standard Pressure, High Pressure, or Over Pressure loading.

Reloading can not be done without a reloading kit and any attempt to reload without one will result in a failure, ruining all of the components in the process.

Ammunition Category	Craft TN	Rounds/Batch
Tiny Pistol	15	500
Small Pistol	20	400
Large Pistol	23	300
Tiny Rifle	18	300
Small Rifle	20	250
Medium Rifle	20	200
Large Rifle	20	100
Huge Rifle	25	50
Shotgun Shell	13	300

Table 183: Craft (Mechanical), Ammunition Reloading

Reloading Supplies

Reloading supplies span everything from the powder to the cases, that are needed to reload ammunition.

Cases Cases are split into eight different categories, based on the type of ammunition. Each category's price is listed for a single unit, which is enough to create a single batch of ammunition. When purchasing a unit of cases, a specific caliber must be specified.

Tiny Pistol Tiny pistol calibers are

.25 ACP
.32 ACP
.32-20 Winchester

Small pistol Small pistol calibers are

9x19mm
.38 Special
.38 Long Colt
.38/200
.38 S&W
.380 ACP
8x22mm Nambu
9x18mm PM
.30 Super Carry
.40 S&W
.41 Long Colt
9mm Jap. Revolver
7.63 Mannlicher
7.63x25mm Mauser
7.62x25mm Tokarev
.38 ACP
.38 Super
.22 TCM
.327 Federal Magnum
7.65 Longue
.38-40 Winchester
7.62x38mmR
.32 S&W Long
.32 H&R Magnum

Large pistol Large pistol calibers are

.45 ACP	.45 Long Colt	.460 Rowland
.45 GAP	.357 Magnum	.44 AMP
.455 Webley	.357 SIG	.45 Win. Mag.
.44 American	10mm Auto	.500 S&W Special
.44 Russian	.50 Action Express	.500 S&W Magnum
.44 Special	9x23mm Steyr	.500 WE
.44 Magnum	.454 Casull	.50 Action Express
.44-40 Winchester	.50 GI	.476 Enfield

Tiny Rifle Tiny rifle calibers are

5.7x28mm	4.6x30mm

Small Rifle Small rifle calibers are
.30 Carbine

Medium Rifle Medium rifle calibers are

5.56x45mm	.243 Winchester	9x39mm
5.8x42mm	.300 AAC Blackout	6.5 Creedmoor
6.5x50mm Arisaka	.17 Remington	
5.45x39mm	6.8mm Remington SPC	

Large Rifle Large Rifle calibers are

7.62x51mm	.300 Win. Mag.	7.5x55mm Swiss
.303 British	.45-70 Government	7.5x54mm French
7.92x57mm Mauser	7.62x54mmR	7x57mm Mauser
.30-06 Springfield	6.5x52 Carcano	7.92x33mm Kurz
.30-40 Krag	8mm Lebel	.30-30 Winchester
7.7x58mm Arisaka	7.62x39mm	6mm Lee Navy
6.5mm Grendel	.458 SOCOM	.280 British

Huge Rifle Huge Rifle calibers are

.338 Lapua	7.92x94mm	12.7x108mm
.50 BMG	14.5x114mm	13.9x99mmB
.56-56 Spencer	20x125mm	20x102mm
.50-70 Government	20x105mm	

Shotgun Shell Shotgun shells are

.410 Bore	16 Gauge	10 Gauge
20 Gauge	12 Gauge	

Powder and Primers The powder listed here is modern smokeless powder and provides enough for one batch of any caliber of ammunition, as well as enough primers for one batch of ammunition.

Payloads Payloads are split into two categories, cased and shell, and the types available for each vary differently. Each listing is enough for a single batch of ammunition, but a specific caliber must be specified.

Cased Ammunition Payloads

Hardball These are plain cast lead bullets with a rounded nose. They are considered FMJ ammunition.

Semi-Wadcutters These are plain cast lead bullets with a tapered nose and sharp edges. It grants a +2 damage per damage dice within the first two range increments, against unarmored targets and a +10% error range.

Steel Core These are lead bullets with a hardened steel core. It removes half of all damage and damage dice, replacing them with ballistic piercing damage, rounded down.

JHP, Light These are light Jacketed Hollow Points. They grant a +1 damage bonus plus +1 damage bonus per damage dice over 4, against unarmored targets, and reduce the Recoil Penalty by 1.

JHP, Standard These are standard Jacketed Hollow Points. They grant a +2 damage bonus plus +1 damage bonus per damage dice over 3, against unarmored targets.

JHP, Heavy These are heavy Jacketed Hollow Points. They grant a +2 damage bonus plus +1 damage bonus per damage dice over 2, against unarmored targets.

JHP, Match These are match Jacketed Hollow Points, designed for accuracy and weight distribution over expansion. They grant a +3 attack bonus when used with a match barrel and a +2 attack bonus when used with a precision barrel, and a –5 damage penalty.

JHP, Supermatch These are supermatch Jacketed Hollow Points, designed for the highest of accuracy at the loss of power. They grant a +4 attack bonus when used with a match barrel and a +2 attack bonus when used with precision barrel, and –1 damage dice and a –4 damage penalty.

SP, Standard These are standard Soft Points. It provides +1 damage dice and +5% error range, against unarmored targets.

SP, Heavy These are heavy Soft Points. It provides +1 damage dice, a +1 damage bonus per damage dice and +10% error range, against unarmored targets.

Tungsten These heavy rounds are designed to destroy armor. Tungsten damages the AP of the armor equal to it's damage roll, regardless of if the armor protects against that particular type of damage or not.

Silver These are cast silver bullets, suited for would-be vampire hunters and dispensers of justice alike. They affect certain creatures in certain ways, but otherwise perform as lead bullets.

Shell Ammunition Payloads

Lead These are simple lead balls. They come in slug, 00 buckshot, #4 buckshot, and #3, #6 and #9 birdshot.

Glass These are glass marbles in 00 buckshot and slug sizes. They deal Slashing damage instead of Ballistic.

Wood These are wooden dowels cut to fit in the selected shell. They deal Bludgeoning damage instead of Ballistic and reduce the range increment of the firearm by half.

Silver These are cast silver pellets. They come in slug, 00 buckshot, #4 buckshot, and #3, #6, and #9 birdshot.

Object	Sz	Wt	Cost	Restr
Cases, Tiny Pistol	S	2.0	1	None
Cases, Small Pistol	S	2.0	2	None
Cases, Large Pistol	S	2.0	2	None
Cases, Tiny Rifle	S	2.0	2	None
Cases, Small Rifle	S	2.0	2	None
Cases, Medium Rifle	S	2.0	2	None
Cases, Large Rifle	S	2.0	3	None
Cases, Huge Rifle	M	2.0	4	None
Hulls, Shotgun Shells	M	2.0	2	None
Payload, Cased, Hardball	S	3.0	2	None
Payload, Cased, Wadcutter	S	3.0	2	None
Payload, Cased, Steel Core	S	3.0	4	None
Payload, Cased, JHP, Light	S	3.0	5	None
Payload, Cased, JHP, Standard	S	3.0	5	None
Payload, Cased, JHP, Heavy	S	3.0	5	None
Payload, Cased, JHP, Match	S	3.0	6	None
Payload, Cased, JHP, Supermatch	S	3.0	7	None
Payload, Cased, SP, Standard	S	3.0	4	None
Payload, Cased, SP, Heavy	S	3.0	4	None
Payload, Cased, Tungsten	S	3.0	6	None
Payload, Cased, Silver	S	3.0	15	None
Payload, Shell, Lead	S	3.0	2	None
Payload, Shell, Glass	S	3.0	3	None
Payload, Shell, Wood	S	3.0	1	None
Payload, Shell, Silver	S	3.0	15	None
Powder and Primers	S	2.0	4	None

Table 184: Equipment, Reloading Supplies

Purchasing Vehicles and Housing

Houses and cars are tremendously expensive to own, operate, purchase and maintain. Because of the scales involved, purchasing vehicles and houses with wealth points isn't feasible. Instead, there will be a separate resource called Capital.

Capital

Unlike Wealth Points, Capital doesn't represent some fixed amount of currency. Instead, it represents resources, supply lines, connections, and business deals. Capital is always tied to some organization, such as the party of PCs, a gang, or even a government or corporation. Capital comes in several forms, being either Hard or Liquid and Personal or External.

Personal Capital

Personal Capital is intrinsic to Player Characters. Player Characters will always have their Personal Capital. Personal Capital is equal to **(5 * (Character Level+1)) + CHA Score**.As well, even if a party fails repeatedly, they'll always be able to start over, using their personal capital.

External Capital

External Capital is all other sources of capital. Typically, External Capital will be gained from adventures, similarly to wealth points or experience points.

Hard & Liquid Capital

Liquid Capital, either Personal or External, is capital that hasn't been spent, and is available for use. For example, Liquid Capital spent to acquire a vehicle becomes Hard Capital. Likewise, at any time the vehicle or it's components could be sold or traded away. In doing so, the Hard Capital is liquidated, and becomes liquid capital that can be spent on something else.

Lost Capital

Things don't always go as planned. Sometimes an organization will find that their hard capital isn't where it should be. Maybe their car was stolen, or even blown up. In cases like this, they can't simply liquidate what they don't have. However, the sudden loss of large amounts of capital can be avoided! The first option would be to reverse whatever circumstances that caused the loss of capital (i.e. recovering a stolen vehicle), but this is sometimes impossible. In cases like this, the loss will have to be written off. When writing off a loss of hard capital, the organization regains any loss of Personal Capital in full as Liquid Capital, but only gains half of any loss of External Capital.

Capital Maintenance

Hard Capital represents physical objects that need to be maintained, repaired, and replenished with consumable resources. When an organization purchases Hard Capital, they've already made the arrangements for that capital's continual maintenance. However, if an organization acquires Hard Capital through other means, such as by capturing a defeated enemy's vehicle, then they'll likely be unable to maintain it properly. They're free to use such assets as they please, but won't be able to replenish it's resources in the way they would with their own Hard Capital.

Vehicles

Vehicles are described by a number of statistics:

- **Crew** The standard number of crew. In most cases, only one person is needed to drive the vehicle; other crew members serve as gunners or copilots.
- **Passengers** The number of passengers (in addition to the crew) the vehicle is designed to carry. Vehicles that carry passengers can use that space to carry additional cargo when passengers aren't present. Each unused passenger slot allows the vehicle to carry an additional 100 pounds of cargo.
- **Cargo Capacity** The amount of cargo the vehicle is designed to carry. Many vehicles can carry extra passengers instead of cargo, but doing so is usually a cramped, uncomfortable, and unsafe experience for those passengers. As a rule of thumb, one additional passenger can be carried for every 200 pounds of unused cargo capacity.
- **Initiative** The modifier added to the driver's or pilot's Initiative check when operating the vehicle.
- **Maneuver (Man)** The modifier added to any Drive or Pilot checks attempted with the vehicle.
- **Top Speed** The highest speed category the vehicle can reach.
- **Defense** The vehicle's Defense.

- **Hardness** The vehicle's hardness. Subtract this number from any damage dealt to the vehicle.
- **Hit Points** The vehicle's full normal Hit Points.
- **Size** Vehicle size categories are defined differently from the size categories for weapons and other objects.
- **Cost** This is the Capital cost to acquire the vehicle. This number reflects the base price and doesn't include any modifiers for purchasing the vehicle on the black market.
- **Restriction** The restriction rating for the vehicle, if any.

Standard Car Classifications

Most new standard cars include such standard features as air conditioning, air bags, anti-lock brakes, cruise control, keyless entry, and an AM/FM radio with CD player. Luxury vehicles often also include extras such as heated side mirrors, power seats, leather upholstery, and sunroofs. In general, these luxury amenities can be added to a non-luxury car with an increase of 10% to the Wealth Point cost. It takes 4 Combat Points to enter or exit a car. It takes 1 Combat Point to start or stop the engine of a car.

Unless otherwise noted, civilian cars provide three-quarters cover for their occupants (although passengers who lean out of windows or sunroofs, perhaps to fire weapons, may be reduced to one-half or even one-quarter cover).

Toy Car

A toy car is any kind of single passenger recreational vehicle, meant for private roads such as road tracks. It lacks any covering at all and does not provide cover of any type for its occupant. Examples include go-karts of various makes and models. Toy cars are a single 5' square.

Microcar

A micro car is a tiny car, built to hold two passengers, used mostly in crowded cities. They have very little cargo space, but can fit in spaces that would be otherwise impossible for other cars. Examples include the Ford Fiesta and the Smart TwoFor. Microcars are 10' long and 10' wide.

Compact Car

A compact car is a car that is not as small as a microcar, but not as big as a mid-sized car. These cars make up a large majority of vehicles on the road, hailed for their adequate passenger space, cargo room, and fuel efficiency. Examples include the Ford Focus, Honda Civic, and the Toyota Corolla. Compact cars are 15' long, and 10' wide.

Mid-Sized Car

Mid-sized cars are larger than compact cars, usually boasting roomy interior, advanced features such as moon roof and enlarged cargo space over a compact car. Examples include the Chevrolet Malibu and the Ford Fusion. Mid-sized cars are 15' long and 10' wide.

Entry Level Luxury Car

Entry level luxury cars are cars that are the size of a mid-sized car, but have luxurious additions, such as heated seats and power seating. They also tend to have a slightly more powerful engine. Examples include the BMW 3, the Audi A4, and the Mercedes-Benz C-Class. Entry level luxury cars are 15' long and 10' wide.

Full-Size Car

Full-size cars are cars with a wide body, a very large, comfortable interior, with lots of cargo space. For this purpose, they are often used as police cars. Examples include the Chevrolet Impala, Ford Taurus, and the Ford Crown Victoria. Full-sized cars are 20' long and 10' wide.

Full-Size Luxury Car

These are roomy, comfortable towncars, often driven by car services and people wanting to make a statement. Examples of these cars include the Audi A8, BMW 7 Series, Lexus LS, and the Mercedes-Benz S Class. Full-size luxury cars are 20' long and 10' wide.

Sports Car Classifications

Sports cars are cars made for the sole purpose of racing; they are fast, agile, and powerful. They also have the same amenities as luxury cars such as heated side mirrors, power seats, and leather upholstery.

Grand Tourer Car

A Grand Tourer is a luxury vehicle, capable of both long distance and high speed driving. They are usually expensive, finely tuned machines that can be driven as a normal car, or driven on a racetrack. Examples include the Maserati GranTurismo, The Porsche 911 GT, the Nissan Skyline and GT-R, and the Ford GT. Grand Tourer cars are 20' long and 10' wide.

Supercar

Supercars are even more expensive versions of Grand Tourers. They are usually marketed as limited production, elite vehicles, or are vehicles that are custom built for power and performance. Examples include the Bugatti Veyron and the Lamborghini Reventon. Supercars are 20' long and 10' wide.

Muscle Cars

Muscle cars are the American version of a Grand Tourer, but instead of being built for performance and long distance, these cars are built for torque and drag racing, with high horsepower engines. Examples include the Dodge Challenger and Charger, the Pontiac GTO, and the Chevrolet Camaro. Muscle cars are 20' long and 10' wide.

Standard Van Classifications

Vans include transport and cargo vans of all types. They are encapsulated all around, and unlike pickup trucks, give cover to their cargo as well. They also have the same standard features that cars have, such as anti-lock brakes, air bags, and AM/FM radio with

CD player. Unless otherwise noted, vans provide three-quarters cover to their occupants.

Multi-Purpose Vehicle

A Multi-purpose vehicle is a van designed for personal use, usually transporting passengers. Examples include the Ford C-Max, Chevrolet Orlando, Chrysler Town and Country, the Ford Galaxy, and the Volkswagen Touran. Multi-purpose vehicles are 20' long and 10' wide.

Cargo Van

Cargo vans are large vans that have a large opening in the rear for transporting cargo. In addition to the single side door, they usually have two rear doors that can be opened. Any cargo or passengers that are in the cargo area have full cover. Examples include the Chevrolet Express 150, Ford e350 van, and the GMC Vandura. Cargo vans are 20' long and 10' wide.

Passenger Van

Passenger vans are vans used to transport large amounts of people, usually upwards of 12 to 15, with little room for cargo. Examples include Chevrolet Express 1500 and the Ford E350 Wagon. Passenger vans are 25' long and 10' wide.

Standard Truck Classifications

Trucks include pickups of all types. They generally have the same features as cars. Like cars, trucks generally provide three-quarters cover to their occupants. The rear bed of a pickup truck, however, provides only one-half cover.

Mini Pickup Truck

A mini pickup truck is a compact pickup truck, usually used for light duty. Examples include the Toyota Hilux, the Chevrolet Montana and the Volkswagen Saveiro. Mini pickup trucks are 15' long and 10' wide.

Mid-Sized Pickup Truck

A mid-sized pickup truck is a pickup truck with a larger cab than a mini pickup truck, but still has the same bed. Examples include the Ford Ranger, the Chevrolet Colorado, and the Nissan Navara. Mid-sized pickup trucks are 15' long and 10' wide.

Full-Sized Pickup Truck

Full sized pickup trucks are trucks that have a large bed and a roomy cabin, most often used for hauling large amounts of material. Examples include the Dodge Ram, the Ford F150, and the Toyota Tundra. Full-sized pickup trucks are 20' long and 10' wide.

Heavy Duty Pickup Truck

Heavy duty trucks are large trucks made for hauling the heaviest of cargo. Examples include the Chevrolet Silverado, the Dodge Ram Heavy Duty, and the Ford Superduty. Heavy duty pickup trucks are 20' long and 10' wide.

Standard SUV Classifications

Sport utility vehicles are vehicles that are made for both on road and off-road work, usually possessing 4x4 Drive to tackle tough terrain. Like trucks, they usually have the same amenities as cars. Unless otherwise noted, they provide their passengers with three-fourths cover.

Mini SUV

A mini SUV is a small, but powerful SUV, built for compactness. It sacrifices cargo space for comfort. Examples include the Jeep Wrangler, and the ford EcoSport. Mini SUVs are 15' long and 10' wide.

Compact SUV

A compact SUV is a small SUV, larger than a mini SUV that incorporates some cargo space. Examples include the Ford Escape, the Jeep Compass, and the Chevrolet Equinox. Compact SUVs are 15' long and 10' wide.

Mid-sized SUV

A mid-sized SUV is a large SUV, complete with good cargo space and ample room for passengers. Examples include the Ford Edge, the Jeep Grand Cherokee, and the Volkswagen Touareg. Mid-sized SUVs are 15' long and 10' wide.

Full-Sized SUV

A full sized SUV is the largest of SUVs, usually including a large amount of cargo room and passenger space. Examples include the Cadillac Escalade, Chevrolet Suburban, and the Ford Explorer: Full-sized SUVs are 20' long and 10' wide.

Standard Motorcycle Classifications

Unlike getting into a vehicle, mounting a motorcycle cost 3 Combat Points. It takes 1 Combat Point to start or stop the engine of a motorcycle. Motorcycles tend to perform better than automobiles in the terms of acceleration and maneuverability, but they provide no cover to their occupants. All motorcycles are 10' long and 5ft wide.

Standard Motorcycle

A standard bike is a general use motorcycle, with a natural posture and are often used as general purpose street bikes. They have good speed and good handling. Examples include the Suzuki GS500E and a Honda Hornet 599.

Cruiser Motorcycle

These bikes are styled after american machines from the 1930s to the 1960s, with a relaxed posture, extended handle bars, and lots of torque and power. Examples include various Harley-Davidsons, Indians and Excelsior-Hendersons.

Sport Motorcycle

These bikes emphasize speed, acceleration, braking and cornering on paved roads, being made for racing and flash. Examples include the Kawasaki Ninja and the Suzuki GSX.

Touring Motorcycle

Touring bikes are bikes designed for long distance riding, offer good weather and wind protection, as well as large capacity fuel tanks and expansive luggage. Examples include the BMW R1200RT and K1600GL, and the Honda Gold Wing.

Dual Sport Motorcycle

Dual sport bikes are enduros that have street legal tires, mirrors, lights and signals, horn, muffler, and fairings. These bikes are built for dual purpose and have the ability to drive off road, as well as on road with no issues. Examples include the Honda XRL series, the Yamaha XT series, the Suzuki DR series, and the Kawasaki KLR series.

Enduro Motorcycle

Enduro motorcycles are off-road motorcycles used primarily for recreation, and not usually ridden on roads. They lack the necessary fairings, mirrors, or lights to be driven safely on roads, and the tires are usually knobby and built for dirt. Enduro motorcycles come equipped with all terrain tires. Examples include the Yamaha YZ250F and Kawasaki KDX220.

ATV

All terrain vehicles, or ATVs are off-road vehicles used primarily for recreation, and not usually ridden on roads. They have four wheels instead of two, making them more stable at slower speeds. They lack the necessary fairings, mirrors, or lights to be driven safely on roads, and the tires are usually knobby and built for dirt, but their wider size gives them the ability to carry cargo at the cost of speed. ATVs come equipped with all terrain tires, but can not take sidecar upgrades. Examples include the Yamaha YZ450R and Kawasaki Brute Force 300.

Scooter

Scooters are two wheeled vehicles with a step through frame, usually with an engine size smaller than a motorcycle. They are ridden in a sitting posture. While not being as fast as a motorcycle, they are more economic, usually ridden around town for light travel. Examples include the Vespa PX and Yamaha Vino.

Standard Watercraft Classifications

Watercraft are craft that are used on the water, encompassing boats and other personal watercraft. It takes 4 Combat Points to enter or exit a watercraft, unless otherwise noted. It takes 1 Combat Point to start or stop the engine of a watercraft.

Unless otherwise noted, watercraft provide one-half cover for their occupants.

Personal Watercraft

A personal watercraft is recreational watercraft that the rider sits or stands on, rather than inside of, like a boat. It lacks any covering at all and does not provide cover of any type for its occupant. Examples include the Kawasaki Jet-Ski and the Honda Aqua Trax. Personal watercraft are a single 5' square wide and 10' long.

Small Boat

A small boat is one of the various types of small watercraft that is used for everything from supporting larger ships to transport and light recreational use. Examples are numerous, including rigid-inflatable boats, yacht tenders, and go-fast boats. Small boats are a single 10' square wide and 20' long.

Large Boat

A large boat is one of the various types of larger watercraft that is used for everything from supporting larger ships to transport and light recreational use. Examples are numerous, including rigid-inflatable boats, bass boats, yacht tenders, and go-fast boats. Large boats are a single 10' square wide and 30' long.

Standard Rotary Aircraft

A rotary-wing aircraft is a heavier-than-air flying machine that uses lift generated by wings, called rotary wings or rotor blades, that revolve around a mast. They are called helicopters. It takes 4 Combat Points to enter or exit a rotary aircraft. It takes 15 minutes to start the engine of a rotary aircraft, and 10 combat points to stop it.

Utility Helicopter

This is a general all purpose helicopter, that has an average range, decent maneuverability, which can fulfill a various set of roles. Examples include the Bell JetRanger. It is 40' long and 15' wide.

Gunship Helicopter

This is a helicopter that has a primary role of engaging ground targets. It is equipped with a 30mm autocannon, and has 4 external hardpoints that can mount rockets, missiles or guns. All weapons are forward firing arc. It is 60' long and 15' wide.

Transport Helicopter

This is a large helicopter whose sole purpose is to transport a large amount of troops, cargo, or supplies from one area to another. It is 65' long and 15' wide.

Standard Fixed Wing Aircraft

A fixed-wing aircraft is an aircraft capable of flight using wings that generate lift caused by the vehicle's forward airspeed and the shape of the wings. It takes 4 Combat Points to enter or exit a fixed wing aircraft. It takes 5 minutes to start the engine of a fixed wing aircraft, and 10 combat points to stop it.

Standard Prop Aircraft

This is a standard aircraft that is powered by a single propeller. It makes up the bulk of all civilian aircraft. Examples include the Cessna 172. It is 60' long and 20' wide at the cabin, with a 100' wingspan.

Military Prop Aircraft

This is an aircraft built for military specifications. It is equipped with two heavy machine guns and has 5 external hardpoints that can accept rockets, missiles, or guns. All weapons are forward firing arc. Examples include the A-29 Super Tucano and the P51 Mustang. It is 80' long and 20' wide at the cabin, with a 140' wingspan.

Standard Jet Aircraft

These aircraft are similar in size to prop aircraft, but instead have a jet engine, allowing them increased speed, often used for transportation. It is 120' long and 30' wide at the cabin, with a 150' wingspan.

Military Jet Aircraft

These aircraft are jet aircraft built for military specifications. They are equipped with a single heavy machine gun and have 6 external and 2 internal hardpoints for rockets, missiles or guns. All weapons are forward firing arc. Examples include the F/A-18, the F-16, and the F-15. It is 60' long and 20' wide at the cabin, with a 40' wingspan.

Other Vehicles

A few types of vehicles don't fit neatly into the categories covered above. Many of these (such as the armored truck and the bus) are usually custom built, so the model name isn't specified as it is with most other vehicles in this section. The description and stats reflect a typical model.

Moving Truck

This is a large cargo truck used to move furniture or deliver freight. Trucks of this sort are often available as rentals. It provides three-quarters cover for occupants in the cab and full cover for any in the back. It is 25' long and 10' wide.

Bus

This is a large vehicle for transporting large amounts of people. It has a door at the front and a second door about halfway down the right-hand side or a door at the rear. It provides three-quarters cover for crew and passengers. It is 60' long and 10' wide.

Armored Truck

Used to transport money between businesses and financial institutions, armored trucks are designed to deter would-be thieves. The truck has three doors and firing ports that allow the crew to use their firearms without leaving the vehicle. It provides nine-tenths cover for its occupants. It is equipped with run-flat tires. It Is 20' long and 10' wide.

Tow Truck

This is a vehicle specifically made to hook up, and transport vehicles either with or without the owner's consent. It can tow any vehicle of the same size or smaller, but when towing a vehicle it incurs a –5 to Maneuverability. It provides three-quarters cover for crew and passengers. It is 40' long and 10' wide.

Golf Cart

This electrical vehicle is primarily used for light transport work, such as moving around on a golf course, or through paved areas such as shopping plazas. It provides no cover for crew and passengers. It is 10' long and 10' wide.

Semi Trailer Truck

Used to transport all sorts of cargo long distances, this truck includes both the cab and an attached full-sized trailer. All occupants in the trailer have full cover, while those in the cab have three-quarters cover. The cab can hold 1,000 lbs of cargo, while the trailer can hold 80,000 lbs of cargo. It Is 80' long and 15' wide.

RV

Recreational Vehicles, or RVs, are motor vehicles equipped with living space and amenities. They are often used for long distance travel, long term vacations, and for comfortable living in remote areas. RVs contain a bathroom, two bedrooms, and a small kitchenette. All occupants in the RV have full cover, while those in the driving and passenger seats have three-quarters cover. It Is 50' long and 10' wide.

Utility Task Vehicle

Utility Task Vehicles(UTVs) are small vehicles configured in a side by side configuration, primarily used for offroad task, such as running dunes, utility work, and transporting equipment offroad. It provides no cover for crew and passengers. Examples include the Kawasaki Mule and the Polaris General. It is 10' long and 10' wide. UTVs do not lose speed due to terrain

Military and Police Vehicles

Several military and police vehicles are covered here. In addition, a number of the standard vehicles covered above are commonly seen in military and police service.

Armored Personnel Carriers

Armored personnel carriers are vehicles designed to carry troops into various conflicts and protect them from small arms fire. Some are equipped with a full turret mounted General Purpose Machine gun, while others are unarmed, usually those in police roles. APCs provide full cover for all of the occupants and the driver, and three-quarters cover for the gunner, if applicable. It takes 12 Combat Points to enter the driver or gunner seat of an APC and another 12 Combat Points to start it moving. It takes 4 Combat Points to Enter the passenger seat of an APC. Examples include the M113, BMP-2, Lenco Bearcat, and Cougar. APCs are 20' long and 10' wide. APCs do not lose speed due to terrain.

Infantry Fighting Vehicle

Infantry fighting vehicles are vehicles designed to carry troops into battle and support them. They differ themselves from APCs by the weaponry they carry, built for more heavy fighting. They have a 30mm cannon and a secondary machinegun, mounted on the same axis as the 30mm cannon, with a full turret. IFVs provide full cover for all of the occupants, the driver and the gunner. It takes 12 Combat Points to enter the driver or gunner seat of an IFV and

another 12 Combat Points to start it moving. It takes 4 Combat Points to Enter the passenger seat of an IFV. Examples include the BMP-3 and M1126 ICV Stryker. IFVs are 25' long and 15' wide. IFVs do not lose speed due to terrain.

Main Battle Tank

A main battle tank is a tank that fills the heavy direct fire role and the secondary infantry and IFV support. Examples include the M1 Abrams and T90. Main battle tanks have a tank cannon, a general purpose machine gun mounted on the same axis as the tank cannon, and a secondary machine gun of its choice. The secondary machine gun is also in a separate, full turret. MBTs are 40' long and 15' wide. MBTs do not lose speed due to terrain.

Multi-Use Vehicle

A multi-use vehicle is a vehicle that is used when armored transport is not necessary, or would cause too much attraction. This version can be configured in a variety of ways, including a two-door pickup, a four-door pickup with a short bed, and a completely enclosed, SUV-like body with a hatchback and four doors, and a heavy machine gun full turret mount on the top, which provides one-half cover. When the MUV is configured with the machine gun, it has one less passenger, and one more additional crew. It is equipped with Run flat tires. A MUV is 20' long and 10' wide.

Mine Resistant Ambush Protected

A Mine Resistant Ambush Protected(MRAP) vehicle is a light tactical vehicle designed to carry troops into various conflicts and protect them from ambushes and improvised explosive devices. Some are equipped with a full turret mounted General Purpose Machine gun, while others are unarmed, usually those in police roles. MRAPs provide full cover for all of the occupants and the driver, and three-quarters cover for the gunner, if applicable. It takes 4 Combat Points to enter the driver or gunner seat of an MRAP and another 4 Combat Points to start it moving. It takes 4 Combat Points to Enter the passenger seat of an MRAP. Examples include the Lenco Bearcat, and Cougar. MRAPs are 20' long and 10' wide. MRAPs do not lose speed due to terrain.

Other Transportation

Horses

A horse is a hoofed, quadrupedal mammal that has been domesticated for work and riding. There are many different breeds of horses, the one listed representing the average work horse. The cost listed includes two saddle bags, and a saddle. Unlike other vehicles, horses die if their hit points reach –10, and are disabled like characters if their Hit Points reach 0. Horses also do not reduce their speed based on terrain. They can be healed using the Treat Injury skill. Mounting a horse costs 3 Combat Points.

Bicycles

A bicycle is a user-powered vehicle that has two wheels on a frame, often made from steel, aluminum, titanium, or carbon fiber. It uses the power generated from the user by pedaling, to propell itself, and it's rider. There are many different kinds of bicycles, the one listed representing the average mid-level quality bicycle. The cost listed includes a basket(Storage comparable to a day pack), and a rear shelf (Can hold a medium sized bag or box). Bicycles, because of their user generated power, do not have powertrains, or drivetrains. They can also not take any body upgrades that require it to have a body, like armor kits, pintle kits, or hardpoints. Mounting a bicycle costs 3 Combat Points.

Tripod

A tripod is a stationary mounted pintle, that is used for mounting weapons. It is not a vehicle in the traditional sense. All tripods have the weapon pintle upgrade built in. Tripods must be constructed. When they are in their deconstructed form, they are considered a Huge object. Tripods take 10 minutes to construct. When they are constructed, they can be used in any direction, but the user must be standing on the opposite direction of the tripod when using the mounted weapon. Tripods can not accept any vehicle upgrades. When disassembled, tripods are Gigantic Sized, and weigh 50 lbs.

Vehicle Upgrades

A vehicle can be upgraded with various upgrades to make them faster, more resilient to attacks, or mount weapons. Vehicles can be upgraded in a number of slots.

- **Body** The frame, the plating, and any other superficial equipment such as the lighting, windshields, paint job, and interior.
- **Wheels** The tires, rims, and the brakes of a vehicle.
- **Powertrain** The engine and any auxiliary equipment hooked up to it, such as a turbocharger.
- **Drivetrain** The transmission and the suspension.

Unless otherwise noted, a vehicle can have as many upgrades of each type as the owner can afford.

Paint Job (Body)

This upgrade gives the vehicle a brand new color, tint, and hue. The car can be painted any color the character wishes.

Convertible (Body)

This upgrade gives the vehicle either a hard top or soft top convertible, allowing the top to retract or extend at the push of a button. It takes 1 round for the top to retract or extend. When the top is retracted, all characters in the vehicle have one-half cover. Only cars, trucks, SUVs, and vans may take this upgrade.

Service Kit (Body)

This upgrade is used for Fire, EMS, and auxiliary vehicles to change their looks to be more visible. This upgrade gives the vehicle lights, sirens, and markings for the selected use. Cars receive space for a standard equipment kit, and trucks, vans, and SUVs receive space for a deluxe equipment kit.

Police Kit (Body)

This upgrade gives the vehicle lights and sirens, markings (if a marked unit), a professional radio, and a spotlight. Cars, trucks, SUVs, and vans also receive two long-gun mounts, capable of securely storing two large firearms in a lock (Handcuff Lock). APCs, IFVs and MBTs that take this kit have all of their weapons removed.

Racing Kit (Body)

This upgrade adds a spoiler, and removes all non-essential parts in the car for racing, such as the rear seats, radio and CD player, and the AC and heat. This upgrade reduces the passenger rating to 1, and reduces the weight of the vehicle by 20%. The racing kit also reduces damage given to occupants, due to rolling or collisions, by half.

Sidecar Kit (Body)

This upgrade adds a sidecar to a motorcycle or scooter, giving a new spot for an additional rider or more storage space. This upgrade increases the passenger rating by 1, but reduces the Maneuverability of a motorcycle by 2, and reduces the top speed of a motorcycle by one category. Anyone sitting in the sidecar has one-half cover. Only motorcycles may take this upgrade.

Light Armor Kit (Body)

This upgrade fits the car with bullet resistant windows, and plating under the doors. Visibly, it looks identical to an unmodified vehicle. It increases the HP of the vehicle by 10%, and the hardness of the vehicle by 2 points. Only cars, trucks, SUVs, vans, and military and police vehicles may take this upgrade.

Heavy Armor Kit (Body)

This upgrade fits the vehicle with heavy plating and thick, reinforced bullet resistant windows. It increases the HP of the vehicle by 30%, the hardness of the vehicle by 10 points, but reduces the max speed category by 1. Only cars, trucks, SUVs, vans and military and police vehicles may take this upgrade.

Weapon Pintle Upgrade (Body)

This upgrade fits the vehicle with a mount that allows for a large or larger weapon to mount onto a vehicle. When mounted, the weapon's Recoil penalty is reduced by 6. This upgrade can not be placed on any motorcycle, ATV or scooter, any fixed wing aircraft, bicycles, horses, tripods, toy cars, or golf carts. Pintle mounts have full range of motion and can fire in any arc. A vehicle can only have one weapon pintle mount.

Internal Hardpoint Upgrade (Body)

This upgrade fits the vehicle with an internal hardpoint that can accept a single missile, a rocket pod bay, or a large or larger weapon. These can be fired by the driver, or wired to a gunner position. If it is wired to a gunner position, remove one passenger location and add one crew location to the vehicle, and increase the cost by 1 Capital. Only cars, trucks, vans, SUVs, and military and police vehicles may take this upgrade, and this upgrade may be taken a maximum of six times. Because of its internal nature, it is impossible to detect when not in use. When taking this upgrade, a firing arc must be selected.

External Hardpoint Upgrade (Body)

This upgrade fits the vehicle with external hardpoints, that can accept a single missile, a rocket pod bay, or a large or larger weapon. These can be fired by the driver, or wired to a gunner position. If it is wired to a gunner position, remove one passenger location and add one crew location to the vehicle, and increase the cost by 1 Capital. This upgrade may be taken a maximum of six times. When taking this upgrade, a firing arc must be selected.

Standard Tires (Wheel)

This upgrade is the standard, general use tires. They grant no bonuses or penalties.

Racing Tires (Wheel)

This upgrade changes the standard tires for high performance racing tires, that grant a +4 bonus to Maneuverability while on any paved roads, but grants a -3 penalty when driving on any other kind of surface, and when driving on wilderness, the car becomes stuck immediately and can not move.

Snow and Ice Tires (Wheel)

This upgrade changes the standard tires for knobby snow tires, that have metal studs in the rubber. They grant a +5 bonus to maneuverability while on any ice or snow terrain, but grant a –5 penalty to maneuvering when driving on paved roads, and a –3 penalty when driving on any other kind of surface.

All Terrain Tires (Wheel)

This upgrade changes the standard tires for off-roading tires, fitted with knobby rubber studs that dig into soft ground. When driving on wilderness, or semi-paved roads, the vehicle's speed loss due to terrain is reduced by 2 categories.

Run-Flat Upgrade (Wheel)

This upgrade will upgrade any set of tires to their run-flat variant. Any attack or action that would cause the tires to be destroyed, and the penalties incurred from that is negated for 45 minutes. After 45 minutes, the tires are damaged as normal, and any skill checks or Saving Throws are then completed, if necessary.

Racing Brakes (Wheel)

This upgrade replaces the standard brakes with a set of high performance racing brakes. The vehicle can reduce its speed by two levels every round.

Turbocharger Kit (Powertrain)

This upgrade fits the vehicle with a turbocharger and an intercooler, which work together to increase the overall output of a vehicle's engine. It increases the maximum speed category of a vehicle by 1.

Nitrous Oxide Kit (Powertrain)

This upgrade fits the vehicle with a single nitrous oxide tank, used by racers to gain a sudden boost of speed. A driver activates the tank for 2 Combat Points, and the vehicle immediately gains two speed categories. Each tank can be activated only once before it must be refilled. The vehicle must not be stationary in order to gain this benefit. This upgrade can be taken up to three times, each time giving an additional tank.

Standard Transmission (Drivetrain)

This transmission is the standard transmission installed in vehicles. It grants no bonuses or penalties.

Sprint Transmission (Drivetrain)

This transmission reduces the overall speed of a vehicle, but helps it get off the line faster. When using this upgrade, a vehicle can immediately go from stationary to Avenue speed, but has a maximum speed of Street speed.

Long Distance Transmission (Drivetrain)

This transmission reduces the acceleration of a vehicle, but increases the gear ratio to help increase its overall speed. When using this upgrade, it takes two rounds to increase to the next speed, but the maximum speed is increased by 3.

Racing Transmission (Drivetrain)

This transmission is a customizable transmission, allowing for variable gear ratios. It can be set to either Sprint, Standard, or Long Distance, and uses the same rules as the selected transmission.

All Wheel Drive Transmission (Drivetrain)

This transmission ties all of the wheels together to increase its traction and reduce loss of speed on loose and rough terrain. When driving on wilderness or semi-paved roads, the vehicle's speed loss due to terrain is reduced by 1 category.

Improved Suspension (Drivetrain)

This upgrade increases the effectiveness of the suspension, making the vehicle easier to handle. It grants a +2 to Maneuver.

Upgrade	Time	Capital Cost
Paint Job	2 hours	1
Convertible	4 hours	2
Service Kit	4 hours	1
Police Kit	3 hours	1
Racing Kit	4 hours	1
Sidecar Kit	8 hours	2
Light Armor Kit	6 hours	4
Heavy Armor Kit	8 hours	5
Weapon Pintle	2 hours	1
Internal Hardpoint	8 hours	1
External Hardpoint	3 hours	1
Standard Tires	20 min.	1
Racing Tires	20 min.	2
Snow and Ice Tires	20 min.	1
All Terrain Tires	20 min.	1
Run-Flat Upgrade	20 min.	1
Racing Brakes	10 min.	2
Nitrous Oxide Kit	1 hour	1
Turbocharger Kit	2 hours	1
Standard Transmission	1 day	1
Sprint Transmission	1 day	1
Long Distance Transmission	1 day	1
Racing Transmission	1 day	5
All Wheel Drive Transmission	1 day	1
Improved Suspension	1 day	1

Table 188: Equipment, Vehicle Upgrades

Lifestyle and Services

Housing

A number of types of homes are mentioned on Table: Lifestyle. The capital cost covers the down payment and financing, as well as the ongoing maintence. All of these homes are of typical construction; luxury appointments with high art design is available with a 25% increase to the capital cost, rounded up. Location dramatically affects a home's value. The given Capital cost assumes a typical suburban location. An undesirable location, such as a bad neighborhood or a remote rural site, reduces the Capital cost by 10%, rounded up. A particularly good location in an upscale neighborhood or city center increases the Capital cost by 15%, rounded up.

Small Apartment

The small apartment is a one- or two bedroom apartment complete with a small kitchen, and out-front parking. It has space for a single vehicle, and can house two people comfortably.

Large Apartment

The large apartment is a three- or two bedroom apartment complete with a small kitchen, and out-front parking. It has space for two vehicles, and can house four people comfortably.

Name	Crew	Pass	Cargo	Init	Maneu	Top Speed	Defense	Hardness	HP	Size	Cost
Standard Car Categories											
Toy Car	1	0	0 lb.	–3	+0	Alley	12	0	25	M	1
Microcar	1	1	50 lb.	–2	–1	Street	9	3	40	L	3
Compact Car	1	3	125 lb.	–2	–2	Highway	8	5	45	H	4
Mid-Sized Car	1	4	145 lb.	–2	–2	Highway	8	5	45	H	5
Entry Level Luxury Car	1	4	190 lb.	–1	–2	Highway	8	5	48	H	12
Full-Sized Car	1	4	225 lb.	–1	–3	Highway	7	5	50	H	7
Full Size Luxury Car	1	4	235 lb.	–1	–3	Highway	7	5	55	H	14
Standard Van Categories											
Multi-Purpose Van	1	7	280 lb.	–1	–2	Highway	7	6	55	H	8
Cargo Van	1	1	2,800 lb.	+0	–2	Highway	6	6	48	H	9
Passenger Van	1	12	250 lb.	–2	–2	Street	6	6	46	G	10
Standard Truck Categories											
Mini Pickup Truck	1	1	800 lb.	–1	–1	Highway	8	5	38	L	4
Mid-sized Pickup Truck	1	2	1,200 lb.	–1	–2	Highway	8	5	45	H	5
Full-Sized Pickup Truck	1	3	2,000 lb.	–1	–2	Highway	7	5	60	H	6
Heavy Duty Pickup Truck	1	4	3,500 lb.	–2	–3	Highway	7	5	70	G	8
Standard SUV Categories											
Mini SUV	1	3	280 lb.	–1	–1	Highway	7	5	50	L	4
Compact SUV	1	4	320 lb.	–1	–2	Highway	7	5	60	H	5
Mid-Sized SUV	1	4	430 lb.	–1	–2	Highway	6	5	70	H	6
Full-Sized SUV	1	5	650 lb.	–2	–3	Highway	6	5	80	G	8
Standard Motorcycle Categories											
Standard Motorcycle	1	1	100 lb.	+2	+2	Highway	10	2	25	M	4
Cruiser Motorcycle	1	1	150 lb.	+1	+1	Highway	9	2	45	M	6
Sport Motorcycle	1	1	0 lb.	+3	+3	All Out	10	2	26	M	6
Touring Motorcycle	1	1	300 lb.	+1	+2	Highway	8	2	28	M	7
Dual Sport Motorcycle	1	1	50 lb.	+1	+2	Highway	10	2	25	M	5
Enduro Motorcycle	1	0	0 lb.	+0	+4	Street	11	0	19	M	2
ATV	1	0	225 lb.	+0	-1	Alley	9	0	22	M	2
Scooter	1	1	20 lb.	+0	+1	Alley	10	0	14	M	1
Standard Rotary Aircraft											
Utility Helicopter	2	3	250 lb.	–3	–4	All Out	4	5	45	G	25
Gunship Helicopter	2	0	50 lb.	–2	–3	All Out	5	20	90	G	35
Transport Helicopter	2	10	6,000 lb.	–4	–4	All Out	4	5	50	G	29
Standard Fixed Wing Aircraft											
Standard Prop Aircraft	2	2	150 lb.	–6	+0	All Out	3	5	23	C	40
Military Prop Aircraft	1	0	0 lb.	–6	+0	All Out	3	12	40	C	52
Standard Jet Aircraft	2	8	500 lb.	–5	–2	All Out	2	5	25	C	70
Military Jet Aircraft	2	0	0 lb.	–5	–2	All Out	2	18	60	C	140
Other Vehicles											
Moving Truck	1	2	33,000 lb.	–4	–4	Avenue	6	5	44	G	10
Bus	1	39	50,000 lb.	–4	–4	Avenue	6	5	48	G	19
Armored Truck	2	0	3,600 lb.	–2	–2	Street	8	10	36	H	9
Tow Truck	1	2	300 lb.	–4	–2	Street	8	6	52	H	11
Golf Cart	1	3	250 lb.	–2	+1	Alley	11	0	21	L	1
Semi-Trailer Truck	1	1	81,000 lb.	–5	–7	Street	5	7	60	G	24
RV	1	7	4,000 lb.	–3	–5	Highway	8	4	40	H	30
UTV	1	3	200 lb.	–1	+1	Street	8	2	20	M	2

Table 185: Equipment, Vehicles

Name	Crew	Pass.	Cargo	Init	Maneu	Top Speed	Defense	Hardness	HP	Size	Cost
Military & Police Vehicles											
MRAP	2	8	250 lb.	–3	–3	Street	6	25	180	H	24
APC	2	8	250 lb.	–3	–3	Street	6	25	180	H	23
IFV	2	8	280 lb.	–4	–3	Street	6	30	190	H	27
MBT	4	0	50 lb.	–6	–4	Avenue	2	50	240	G	110
MUV, 2-Door Pickup	1	1	1,800 lb.	–2	–2	Street	7	10	55	H	19
MUV, 4-Door Pickup	1	3	1,000 lb.	–2	–2	Street	7	10	55	H	19
MUV, SUV w/o Gun	1	4	250 lb.	–2	–2	Street	7	10	55	H	19
MUV, SUV w/ Gun	2	3	100 lb.	–2	–2	Street	7	10	55	H	19
Sports Car Categories											
Grand Tourer Car	1	1	50 lb.	–1	–2	All Out	7	3	40	H	19
Supercar	1	1	75 lb.	+0	–2	All Out	7	3	55	H	33
Muscle Car	1	1	250 lb.	–2	–2	All Out	7	5	62	H	17
Standard Watercraft Categories											
Personal Watercraft	1	1	25 lb.	–1	+2	Highway	10	0	30	M	2
Small Boat	1	6	350 lb.	–4	+1	Highway	7	2	60	L	3
Large Boat	1	10	700 lb.	–7	+0	Highway	5	5	80	H	6
Other Transportation											
Horse	1	1	100 lb.	+1	+2	Cruising	12	0	25	L	2
Bicycle	1	0	15 lb.	+0	+5	Observing	9	0	5	M	1
Tripod	1	0	0 lb.	+1	N/a	N/a	0	3	10	L	1

Table 186: Equipment, Vehicles (cont.)

Weapon	Damage	Critical	Damage Type	Rng.	RoF	Magazine	Sz.	Cost	Restr
Cannons [Requires Exotic Firearms Proficiency (Cannons) feat]									
30mm Cannon	16d12	16-18	Ballistic	300'	Auto(F)	Linked	H	*	M&P
Tank Cannon	45d12	16-18	Ballistic	300'	Single	1	H	*	M&P
Machine Guns									
HMG	10d8	16-18	Ballistic	180'	Auto(F)	Linked	H	190	M&P
GPMG	5d6	16-18	Ballistic	120'	Auto(F)	Linked	H	100	M&P
LMG	5d4	16-18	Ballistic	100'	Semi/Auto(F)	Linked	L	75	M&P
Rockets and Missiles									
Rocket Pod[1]	8d12	16-18	Concussion	130'	Semi	12	H	220	M&P
Missile[2]	26d6	16-18	Concussion	250'	Single	1	H	400	M&P
Grenade Launcher									
Grenade Launcher[3]	10d6	16-18	Concussion/Fire	90'	Semi	Linked	L	90	M&P

*Cost do not apply. These weapons are part of the vehicles on which they are mounted.

1 This weapon has a splash damage of 15', and ignores 10 points of Hardness.

2 This Weapon has a splash damage of 30', and ignores 25 points of Hardness.

3 This Weapon has a splash damage of 10', and ignores 15 points of Hardness.

Table 187: Equipment, Vehicle Weapons

Small House

The small house is a one- or two-bedroom house, usually containing a small garage that can hold one vehicle. It can house can house two people comfortably. The garage can also be converted into a workshop that can hold one deluxe sized kit.

Medium House

The medium house is a three- or four-bedroom house, usually containing a garage that can hold two vehicles. It can house can house four people comfortably. The garage can also be converted into a workshop that can hold two deluxe sized kits.

Large House

The large house is a five- or six-bedroom house, containing a large garage that can hold four vehicles. It can house can house six people comfortably. The garage can also be converted into a workshop that can hold four deluxe sized kits.

Small Mansion

The small mansion is a seven- or eight-bedroom house, containing a large garage that can easily hold eight vehicles. It can house can house eight people very comfortably. The garage can also be converted into a workshop that can hold eight deluxe sized kits.

Large Mansion

The large mansion is a house with nine or more bedrooms, containing a huge garage that can easily hold twelve vehicles. It can house can house nine or more people extremely comfortably. The garage can also be converted into a workshop that can hold twelve deluxe sized kits, with room to spare for a billiards table.

Transportation

Airfare tickets are for a single passenger round trip. One-way tickets are available, but only reduce WP costs by 30%, rounded up. Car rentals and lodging rates are per day.

Lifestyle	WP Cost	Capital Cost
Housing, Small Apartment	–	3
Housing, Large Apartment	–	4
Housing, Small House	–	5
Housing, Medium House	–	8
Housing, Large House	–	11
Housing, Small Mansion	–	16
Housing, Large Mansion	–	24
Transportation, Airfare, Domestic, Coach	6	–
Transportation, Airfare, Domestic, First Class	12	–
Transportation, Airfare, Int'l, Coach	15	–
Transportation, Airfare, Int'l, First Class	30	–
Transportation, Car Rental, Economy Car	4	–
Transportation, Car Rental, Mid-size Car or Truck	6	–
Transportation, Car Rental, Luxury Car	10	–
Lodging, Budget Motel	2	–
Lodging, Average Motel	4	–
Lodging, Upscale Hotel	10	–

Table 189: Lifestyle

Auto Repair

Having a car repaired can be expensive; the level of expense depends on the amount of damage the vehicle has suffered. The WP cost for damage repair assumes that the vehicle has not actually been disabled; if it has, increase the WP cost by 50%, rounded up. Repair generally takes 1 day for every 10 HP of damage dealt and results in the vehicle being returned to full HP.

Gunsmithing, Blacksmithing and Engineering Services

Characters can hire gunsmiths, blacksmiths or engineers to create weapons or equipment for them. The WP cost is determined by the TN of the Craft check required, at 3 WP per TN, and the character must also pay for any material cost. Characters are restricted to the level of license they currently have, and can not request the smith or engineer to build something that is out of their license level.

Bail Bonds and Legal Services

Characters jailed for crimes can seek bail. Bail is a monetary guarantee that the suspect will show up for his trial. The bail amount is set by a judge or magistrate, sometimes immediately following arrest (for minor crimes) and sometimes days later (for serious crimes). If bail is granted, a character can arrange for a bail bond, a loan that covers bail. The costs represent the fees associated with the loan; the bond itself is paid back to the bond agency when the character shows up for trial. If the character fails to show up, the agency loses the bail loan and may send bounty hunters or other thugs after the character.

Bail amounts vary dramatically, depending on the seriousness of the crime, the suspect's criminal history, their role in society, their family life, and other factors the judge believes indicate that the character will or will not flee (or commit other crimes) before the trial. An upstanding citizen with a good job and a family who has never before been charged with a crime gets minimal bail; a career criminal with nothing to lose receives maximum bail or may not be granted bail at all. The WP cost shown assumes the suspect is viewed positively by the court. If not, increase the cost by as much as 25%, rounded up. Whatever the base cost, a successful Presence check [TN15] by the suspect reduces the purchase price by 10%, rounded up.

Legal Services

The cost of legal services is 15 + the lawyer's Knowledge (Civics) rank.

Civil Crime

This crime involved civil matters, no one was threatened or hurt physically as a part of the crime.

Property Crime

The crime involved only the destruction of property; no one was attacked or seriously hurt as part of the crime.

Assault Crime

The crime involved an attack intended to capture, kill, or seriously injure the victim.

Death Crime

Someone died as a result of the crime.

Medical Services

A character's medical insurance is built into their salary; the cost represents the ancillary expenses not covered or only partly covered by insurance. Medical services must be paid for in full regardless of whether they are successful. See the Treat Injury skill for more information on the medical services described below. In a hospital setting the necessary Treat Injury checks are always successful. The Wealth Point cost is per check.

Long-Term Care

The cost represents treatment for regaining HP or ability score points more quickly than normal on a given day.

Restore Hit Points

The cost represents treatment for HP damage from wounds or injuries on a given day.

Surgery

The cost represents a single surgical procedure. A character is fatigued for 24 hours after undergoing surgery.

Treat Poison/Disease

Represents one application of treatment for a poison or disease. The cost is 10 + cost of antidote.

Miscellaneous Services

Tutoring Services

The cost represents hiring an expert to tutor a single character in a single subject. Tutoring takes 8 hours of class time and the character gains the benefit of being tutored .

Service	WP Cost
Auto Repair, 1-10 HP Damage	10
Auto Repair, 11-20 HP Damage	15
Auto Repair, 21-30 HP Damage	20
Auto Repair, 30+ HP Damage	35
Auto Repair, Towing	5
Smithing and Engineering services	3 per TN
Bail Bonds, Civil Crime	15
Bail Bonds, Property Crime	25
Bail Bonds, Assault Crime	120
Bail Bonds, Death Crime	250
Bribery, Bouncer	2
Bribery, Bureaucrat	25
Bribery, Informant	5
Bribery, Police Officer	10
Legal Services	See text
Medical Services, Long-Term Care	10
Medical Services, Restore HP	12
Medical Services, Surgery	15
Medical Services, Treat Poison/Disease	See text
Miscellaneous Services, Tutoring	6

Table 190: Services

Chapter VIII

Game Mastering

The Role of the Game Master

The Game Master is a storyteller and a referee, creator of terrible threats against humanity, secret master of the villainous, criminal and insane, and hidden protector of the brave. The GM's responsibilities include three important tasks.

Craft a Story

First and foremost, a game session is a story. It should make sense and hang together, complete with a beginning, middle, and an ending. After you set the adventure in motion, the players help provide what happens in the middle and how the conclusion plays out.

Create the world

The GM develops the campaign world, either using one from a preexisting one, or creating all their own. The campaign provides the backdrop and the story that unfolds.

Adjudicate the Game

Finally, the GM decides to add a few enemies to keep the characters in danger and actually referees the use of the rules contained in this book. The players must be able to count on you to run the game fairly and in everyone's interest.

Frequently Asked Questions and Examples of Play

Frequently Asked Questions

How much armor can I wear? Answer: Concealable armor can be worn under tactical or Impromptu armor, and no other kind of armor may be worn on top of one another.Also, armor, unlike clothing, wears against your carrying capacity, so this must be taken into account when you wear armor.

Do I apply armor DEF against all attacks, or only against those that the DR protects from? Answer: All attacks. Regardless of if the armor protects against that kind of damage or not.

Does armor stack? Answer: Yes, armor does stack. If the DR of one upper armor is depleted, and the target is wearing armor underneath that that does stop the same kind of damage of that was given, the left over damage is transferred to the armor underneath, and that damage goes to the new armor's armor point score.

Do unspent combat points roll over to the next round? Answer: No. Any unspent combat points are lost once the next round begins. A character can ready an action, or hold their action, but they must use those points by the end of the round, otherwise they are lost and the point values are reset.

When does a grenade explode if it doesn't explode when I throw it? Answer: Unless otherwise noted, grenades take a full round to explode. Everyone gets a single turn to react to the grenade, and the grenade explodes at the beginning of the turn of the person who originally threw it.

I'm bleeding, when do I roll my bleed dice? Answer: Bleed dice are rolled after the person that is bleeding ends their turn, or has run out of combat points to continue their turn. They are always rolled after their turn has completed, never before or during, even if they acquired the bleed dice during that turn.

When do I need to specify a called shot? Answer: Called shots should be specified before an attack roll is made, so that the necessary modifiers can be applied to the roll, and so that there is no confusion between the GM and the players on what the player is attempting to attack. If you don't specify a called shot, it is assumed you are aiming for "Center mass" or the chest-pelvis region.

Can I throw (Object)? Answer: Usually yes. Any object that isn't outright listed to be thrown follows the standard rules for throwing objects (10' range, 5 range increments), and is considered a "Brick" for damages.

Do ammunition types change the caliber recoil penalty from damage alone? Answer: No, recoil is only increased if the particular ammunition specifically dictates that it is increased by that ammunition type. If it does not specify that the specified ammunition type increases the caliber recoil penalty, it does not.

Do I have to roll all this damage for something I know will be killed by the attack? Answer: No. At the discretion of the GM, If any character or creature would be damaged by an attack or action that has 1.5x or more damage **dice** than the character has both CHP and XHP combined, the GM can immediately reduce this character or creature's XHP and CHP to 0. If a GM does want to apply bleed damage in this case, treat each damage dice as if it rolled the lowest possible value per dice. Also, if any character or creature would be damaged by an attack or action that has more than 2x damage **dice** than the character or creature has in both CHP and XHP combined, the GM can immediately consider this character dead. Bleed damage is usually unnecessary in this case, but can be applied in the same manner as stated before. If an object or vehicle would be damaged by an attack or action that has more than 2x damage **dice** than the object or vehicle has in HP, the GM can immediately consider the object destroyed, and blown to pieces.

Does increasing ability scores through training or some other means also improve prior level values? Answer: Sometimes. Increases of Strength, Dexterity, Constitution, Wisdom, and Charisma immediately improve any values that rely on them or use them to derive a value, such as attack bonuses, damage bonuses, HP, Mental Limit, and their associated ability score skill modifiers. Intelligence does as well, but a player does not gain retroactive skill points for prior levels they did not have when they leveled up, because they did not have that level of intelligence when they leveled up. Going forward, their current Intelligence score would be used, which would result in more skill points. A GM can, however, award these skill points they would have missed, as they see fit.

What order do I apply modifiers to the range increment? Answer: All non-optics mods that increase range are applied first, then optics, then any feats that may increase or decrease range, and then any racial bonuses.

Do I have to always take the negatives when using a weapon in each hand? Answer: No. Two weapon fighting and the feats and penalties included only applies if the character does both attacks using one CP cost. A character can also use a weapon one handed, paying the normal cost they would for the attack.

Combat Examples

Ranged Combat Example

Henry Example
Medium Human
CHP 15
XHP 16
Initiative +1
Combat Points 15 (–2 when moving)
Defense 13, touch 11, flat-footed 12 (+2 Armor, +1 Dex)
Armor Concealable Vest (11/Ballistic, 2/Slashing; AP 35)
BAB +2
Grapple +4
Attack +5 Melee (1d6+2; Unarmed Strike) or +4 Melee (1d6+2/ Bludgeoning; Light Club) or +3 Ranged (Glock 17 (9x19mm) (PA) 35ft, 17r 2d6/16-18 +2 against Unarmored/-2 against Armored (JHP)) or +3 Ranged (Pepper Spray (Single) 5ft, 1r Special (see text))
Reach 5'
Fighting Space 5' by 5'
Saves Fort +2, Ref +2, Will +2
Ability Scores Str 14, Dex 12, Con 13, Int 12, Wis 13, Cha 10
Skills Acrobatics +4, Athletics +6, Drive +4, Knowledge (Civics) +5, Knowledge (Streetwise) +4, Perception +10, Presence +2 (+4 with police uniform)
Feats Brawl, Personal Firearms Proficiency, Skill Focus(Perception), Handgun Specialist, Rifle Specialist, Medium Armor Proficiency
Possessions Police Uniform, Police Badge, Utility Belt with Tactical Holster, Concealable Vest, Police Baton (with Retractable upgrade), Glock 17 (with a Tactical Flashlight), Pepper Spray, 3 17 round Glock 26 magazines loaded with 17 rounds of 9x19mm JHP, Smartphone, Professional Radio, Standard Flashlight, Steel Handcuffs.

Larry Example
Medium Human
CHP 16
XHP 21
Initiative +0
Combat Points 15
Defense 10, touch 10, flat-footed 10
Armor None
BAB +2
Grapple +4
Attack +5 Melee (1d6+2; Unarmed Strike) or +2 (+3 within the first 30ft) Ranged (S&W SD40 (.40 S&W) (PA) 30ft, 14r 3d4/16-18)
Reach 5'
Fighting Space 5' by 5'
Saves Fort +4, Ref +0, Will +1
Ability Scores Str 14, Dex 10, Con 14, Int 10, Wis 10, Cha 10
Skills Athletics +6, Drive +3, Knowledge (Streetwise) +6, Perception +2, Presence +3 (+5 when intimidating), Stealth +4
Feats Brawl, Street Fighting, Personal Firearms Proficiency, Point Blank Shot, Menacing, Improvised Weapon Proficiency
Possessions Track suit, S&W SD40 (.40 S&W), 14 round SD40 magazine loaded with 14 rounds of .40 S&W FMJ (3d4), 2d4 WP in cash

Turn 0, Pre-combat actions Henry and Larry are both standing on a street, 30' away from one another. Henry rolls a perception check against the concealed handgun that Larry has concealed in his waistband. Larry took 10 to conceal that handgun, so the TN to detect it is 14(10 + 4 Stealth Ranks). Henry rolls a 26 (3d6: 6, 6, 4, +10 Perception) and easily spots the handgun carried in the waistband of Larry. Henry inquires about the handgun he spotted in Larry's waistband to Larry, who immediately yells obscenities and threats at Henry. The GM calls the start of combat. Because neither character has surprised the other, there is no surprise round, so both characters roll initiative. Henry rolls a 7 (3d6: 2, 2, 2 +1) and Larry rolls a 3 (3d6: 1, 1, 1, +0).

Turn 1, Henry's actions Henry wins the initiative so he goes first. Henry draws his Glock 17 handgun from his Tactical Holster (3 CP) and gives Larry a command to put his hands up, readying an action that if Larry makes a move for his waistband, he will immediately take a single shot attack(6 CP - 1 CP for Handgun Specialist Feat = 5 CP cost).
Henry also walks 10' closer (2 CP at 1 CP per 5' + 2 CP cost to move for wearing armor = 4 CP cost) standing 20' away from Larry now. Henry has spent 12 CP total during his turn and ends his turn.

Turn 1, Larry's actions Larry begins his turn by immediately drawing his handgun from his waistband (6 CP).
When Larry does this, Henry's readied action trips, and Henry takes his single shot. Henry rolls a 12 (3d6: 4, 2, 3, +3) which is over Larry's 10 Defense, and strikes Larry in the chest. Because Henry did not specify where he was shooting, the shot was aimed at center mass by default. Henry rolls his damage, rolling a 12 (2d6: 5,5, +2 for unarmored due to JHPs), and does 12 Ballistic damage to Larry. Larry immediately takes this 12 damage to his Extended Hit Points, reducing them down to 9. Larry also now has 4 bleed damage, and takes 4d3 bleed dice at the end of his turn.
Larry takes a single shot (6 CP) at Henry with his S&W SD40, rolling a 19 (3d6: 6, 4, 6, +3). This is a critical attack (All firearms have a critical threat range of 16-18 natural roll) , and because it is above the defender's defense of 13, the attack is successful. Because it is a critical strike, the attack ignores armor and Extended Hit Points, going straight to Henry's Core Hit Points. Larry rolls his damage, rolling a 10(3d4: 4, 3, 3), and does 10 ballistic damage to Henry's Core Hit Points, leaving him with 5. Because it bypassed his armor, Henry now has 3 bleed damage and will take 3d3 bleed dice at the end of his turn.
Larry finally backs up 15' (3 CP), increasing the distance between the two to 35'. Larry has spent 14 of his CP, and ends his turn.
At the end of his turn, Larry rolls his bleed dice, receiving 7 damage (4d3:3, 1, 2, 1,), which is subtracted from his Extended HP first, leaving him with 2 Extended HP.

Turn 2, Henry's actions Henry immediately returns fire at Larry, performing a Double Tap Attack(6 CP - 1 CP for Handgun Specialist Feat = 5 CP cost). Henry's 14 Strength Score (+4 to recoil) mostly offsets the -5 Caliber Recoil penalty(-3 + -2 for 9x19mm), giving the attack a -1 total penalty. Henry rolls his attack, rolling a 14(3d6: 5, 2, 5, +3 -1 Recoil), and successfully attacks Larry. Because 9x19mm

has 2 or less damage dice as standard (2d6), it gains +1 damage dice. Henry rolls his damage, rolling 12 (3d6:2,3,5, +2 for unarmored due to JHPs), and does 12 ballistic damage to Larry.
Larry is completely out of Extended Hit Points, taking 2 damage to his extended HP, and the remaining 10 damage going to his Core Hit Points instead. Larry has 6 Core Hit Points left now. Larry also has received 4 bleed damage, bringing his total bleed damage to 8.
Henry performs another Double Tap Attack (5CP) at Larry, rolling a 13(3d6: 5, 1, 5, +3 -1 Recoil), successfully attacking Larry again. Henry rolls his damage, rolling 11 (3d6: 4, 4, 1, +2 for unarmored due to JHPs), and does 11 ballistic damage to Larry. Larry is now at -4 Core HP, and falls unconscious immediately. He also receives 3 more bleed damage, bringing his total bleed damage to 11.
Henry uses the remainder of his turn radioing in the situation, and ends his turn.
At the end of his turn, Henry rolls his bleed dice, receiving 5 damage (3d3: 2, 1, 2,), which is subtracted from his Extended HP first, leaving him with 11 Extended HP.

Turn 2, Larry's actions Larry is currently unconscious, at -4 Core Hit Points. He first attempts a Fortitude Saving Throw to stabilize himself, rolling a 15(3d6: 4, 6, 1, +4), which is less than the TN20 required to stabilize. For this, he loses 1 Core Hit Point, putting him at -5. Because he is unable to stabilize himself, his turn ends.
At the end of his turn, Larry rolls his bleed dice, receiving 26 damage (11d3: 3, 1, 3, 3, 3, 1, 3, 3, 2, 1, 3), putting him at -31, killing him. This ends the combat.

Melee Combat Example

Bruce Example
Medium Human
CHP 12
XHP 6
Initiative +1
Combat Points 15
Defense 11, touch 11, flat-footed 10 (+1 Dex)
Armor None
BAB +1
Grapple +4
Attack +2 Melee (1d3+1; Unarmed Strike) or +2 Melee (2d6+1/15-18 Piercing or 1d4+1/15-18 Bludgeoning; Short Spear)
Reach 5' (10' when attacking with Short Spear, cannot strike adjacent foes with this weapon)
Fighting Space 5' by 5'
Saves Fort +0, Ref +1, Will -1
Ability Scores Str 12, Dex 12, Con 10, Int 9, Wis 8, Cha 8
Skills Acrobatics +3, Athletics +3, Drive +4, Ride +3, Perception +2
Feats Simple Weapon Specialist, Archaic Weapons Proficiency (Spears), Improvised Weapon Proficiency
Possessions Peasant Clothes, Short Spear, flask (Mediocre Quality Water), dried beef strips

John Example
Medium Human
CHP 14
XHP 15
Initiative +2
Combat Points 15 (–1 when moving)
Defense 13, touch 12, flat-footed 11 (+1 Armor, +2 Dex)
Armor Leather Vest (2/Bludgeoning, Piercing, 4/Slashing; AP 36), Leather Helmet (2/Slashing; AP 6)
BAB +2
Grapple +3
Attack +2 Melee (1d3+1; Unarmed Strike) or +3 Melee (1d6+1/15-18 Slashing; Shortsword) or +3 Melee (1d4+1/14-18 Slashing; Dagger)
Reach 5'
Fighting Space 5' by 5'
Saves Fort +2, Ref +4, Will +1
Ability Scores Str 12, Dex 14, Con 12, Int 9, Wis 8, Cha 8
Skills Acrobatics +4 (+6), Athletics +4 (+6), Knowledge (Tactics) +1, Perception +2, Ride +2, Stealth +2 (+4)
Feats Archaic Weapons Proficiency (Combat Swords), Light Armor Proficiency, Acrobat, Sword Martial Arts, Simple Weapon Specialist, Shield Focus
Possessions Soldier Clothing, Leather Vest, Leather Helmet, Shortsword, Dagger, Concealed Sheath, Tactical Sheath, Bedding, flask (Mediocre Quality Water), dried beef strips

Turn 0, Pre-combat actions John and Bruce are both standing in a field, 30' away from one another. Bruce is already holding his spear in his hand, and John is standing with his arms crossed. John takes a single 5' step towards Bruce, which prompts Bruce to grasp and ready his spear. They are standing 25' away from one another now. The GM calls the start of combat. Because neither character has surprised the other, there is no surprise round, so both characters roll initiative. Bruce rolls a 9 (3d6: 2, 4, 2 +1) and John rolls a 10 (3d6: 1, 6, 1, +2).

Turn 1, John's actions John immediately draws his shortsword (3 CP) and advances 15' (3 CP at 1 CP per 5' + 1 CP cost to move for wearing armor = 4 CP cost) toward Bruce. John is currently in Bruce's threatened square, as he is standing 10' away from Bruce. Because he started out of a threatened square John takes an additional 5' (1 CP) toward Bruce, stepping out of Bruce's threatened square, as short spears can attack up to 10' away from the target, but not attack adjacent targets. Because of this, this provokes an attack of opportunity.
Bruce makes his Attack of Opportunity, rolling a 14 (3d6: 4,2,6, +2), which is over John's 13 defense. He rolls his damage and receives 5 (2d6: 3,1,+1) piercing damage. John is wearing a leather vest, which protects him from 2 of the piercing damage. His armor loses 2 Armor Points, leaving him with 34 Armor Points left, and he takes 3 points to his Extended Hit points, leaving him with 12. He does not take any bleed damage as he was wearing armor that protected him from the damage he received.
He swings his sword at Bruce (3 CP), rolling a 13 (3d6: 3,3,4, +3) for his attack. This is well above Bruce's 11 defense. He rolls his damage, getting 6(1d6:5, +1) and dealing 6 slashing damage to Bruce. Bruce takes this damage firstly to his Extended hit points, leaving him with 0. Bruce also has 2 bleed damage, and will take 2d3 bleed dice at the end of his turn.
John swings his sword a second time, choosing to swing lightly(3 CP - 1 CP Light attack modifier = 2 CP cost), swinging at a reduced cost. He rolls a 14 (3d6: 5, 5, 1, +3) for his attack, striking Bruce again. He rolls his damage, getting 4 (1d6: 6, -2), and applying this to Bruce's Core Hit Points now. Bruce takes 4 damage to his Core Hit Points, leaving him with 8 Core Hit points. Bruce also takes an additional 1 bleed damage, for a total of 3 now.
John has spent 13 Combat Points, and ends his turn.

Turn 1, Bruce's actions Bruce immediately withdraws from John's attack and moves back by 5' (4x CP cost to move * 1 CP per 5' = 4 CP cost)

Bruce is now in his weapon's reach range, and makes an attack with his spear (4 CP), choosing to target John's arm. He declares that he's targeting John's sword arm, taking the -6 Penalty to his attack. He rolls a 9 (3d6: 5,5,3, -4), and misses John's arm.

Bruce attacks again, forgoing targeting John's arm and makes a standard attack attacking his center mass (4 CP), rolling a 13 (3d6: 6, 1, 4, +2). John's defense is also 13, and defenders always win ties, so Bruce barely misses John with his attack.

Bruce declares that he's going to extra effort, immediately gaining 5 extra Combat Points. He uses these combat points to throw down his spear(0 CP) and hightail it in the opposite direction, screaming for his life. Bruce runs 40' (8 CP) feet before he runs out of combat points and ends his turn.

At the end of his turn, Bruce rolls his bleed dice, receiving 5 damage (3d3: 3, 1, 1,), which is subtracted from his Core Hit Points, leaving him with 3 Core Hit points.

As Bruce has left the normal range for melee combat, and with John having no form of ranged combat, the GM considers this combat to be complete. Bruce will quickly bleed out without any kind of medical assistance.

NPCs

Ordinaries

"Ordinaries" are supporting characters and extras. Ordinaries are built using the standard character creation rules and have occupations, skills, and feats. As they gain levels, ordinaries increase their skill points, and BAB. However, ordinaries differ from characters in three ways. An ordinary character has

- The standard starting ability score package.
- No ability focuses.
- No COP to spend on any upgrades.

Starting Ability Scores

Ordinaries do not roll their ability scores. They start with the standard score package: 15, 12, 12, 10, 10, 8. The GM can assign the scores as they see fit. At 3rd level and 6th character level, an ordinary adds 1 point to one ability score.

Hit Points

Ordinaries receive the standard set Hit Points as if they did not purchase any using COP.

Children

Children (newborns to age 11) are handled differently from other characters. They do not have levels. They begin with the same ability score package as ordinaries, but their ability scores are reduced as follows: –3 STR, –1 DEX, –3 CON, –1 INT, –1 WIS, –1 CHA.

Children have 1d4 CHP plus their CON modifier (minimum 1 CHP). They have no skills, feats, or occupations. Their BAB is +0, and they have a +0 modifier on all Saving Throws (plus any ability score modifiers). Children have a +0 modifier to Defense and 10 Combat Points. Children have no effective attacks and should be treated as noncombatants.

When a child turns 12, they are considered a young adult and takes their first level. At that point, the character becomes an ordinary (or character, in some cases).

Battle Value

An ordinary character has a BV based on their Character Level.

Children have a BV of 0 and characters receive no experience points for murdering them.

1 Aloof
2 Bad breath
3 Bald
4 Bookish
5 Braces or dentures
6 Brave
7 Capricious
8 Careless
9 Clean
10 Collector
11 Condescending
12 Cowardly
13 Unusually Straight Teeth
14 Crooked Teeth
15 Cruel
16 Cryptic, evasive, or secretive
17 Dirty and unkempt
18 Distinctive jewelry
19 Distinctive nose
20 Distinctive scar
21 Doesn't like to be touched
22 Drunkard
23 Easy going
24 Enunciates very clearly
25 Even Tempered
26 Exacting
27 Eyeglasses
28 Eye patch
29 Fanatical
30 Fast talker
31 Fidgets nervously
32 Foppish
33 Forgiving
34 Forging
35 Foul-mouthed
36 Hacking cough
37 Hard of hearing
38 Helpful
39 Hot tempered
40 Hyperactive
41 Impeccably dressed
42 Inquisitive
43 Jealous
44 Jokester
45 Jumpy
46 Lazy
47 Loquacious
48 Melancholy
49 Missing tooth
50 Missing finger
51 Moody
52 Multiple piercings
53 Nasal voice
54 Nervous twitch
55 Neurotic
56 Never shuts up
57 No sense of humor
58 Not very observant
59 Obsequious
60 Obese
61 Opinionated
62 Optimistic
63 Overbearing
64 Particularly high voice
65 Particularly long hair
66 Particularly low voice
67 Passionate artist or hobbyist
68 Perfect teeth
69 Pessimistic or cynical
70 Pleasant-smelling
71 Preachy
72 Reclusive
73 Self destructive
74 Self glorifying
75 Sexist, Racist, etc.
76 Promiscuous
77 Shaky hands
78 Sings or hums a lot
79 Talks a lot
80 Stooped back
81 Strong body odor
82 Stutters lisps or slurs
83 Suave
84 Suspicious
85 Sweaty
86 Theatrical
87 Unfeeling
88 Unusual hair style or color
89 Uses big words
90 Uses expressive hand gestures
91 Very short
92 Very tall
93 Visible birthmark
94 Visible tattoo
95 Walks with a limp
96 Wears flamboyant or outlandish attire
97 Wears toupee or wig
98 Well-read
99 Well-mannered
100 Whistles

Occupational Equipment and Resources

Character occupations can determine the personality, background, and even the preferred equipment of the character. Below are notes on equipment, based on the occupation of the character. This is usually in addition to the normal equipment nearly all people carry, such as writing utensils, wallets and identification, and currency. This also includes any vehicles, or housing arrangements that the character may have. Generally, it's assumed that the rest of the character's salary is going to paying for utilities such as car payments, insurance, and housing payments, so there's no need to track or bother with keeping up with those funds.

Vehicles and Housing

It's not required that a GM give players housing, cars or access to resources, if it doesn't fit the game or story line that the GM is telling. These rules are to be used as a guide to more flesh out characters secondary assets before the campaign starts. It's also a good idea to give players a choice: If they choose not to purchase a car with the allotted funds, to instead give them 10% of the listed value for their own personal use.

Academic

Academics of all types are often nearby computers, and usually have various writing materials and text on hand. Academics with specific focuses will have small to standard kits available at their disposal, for instructional purposes. They also have access to non-internet sources for information in the form of white papers, private college research networks, contacts within their chosen form of field of study.

Housing

Housing can vary greatly, depending on how successful the Academic is. New academics may live in a small or large apartment, while more tenured academics may have a small to medium house.

Vehicle

An academic would possess a vehicle that cost 3 to 5 Capital.

Adventurer

Adventurers such as daredevils and extreme sports enthusiasts have some type of equipment that suits their thrill of choice, such as a motorcycle, sports equipment, or parachute. This should be given to them instead of required for them to buy outright, due to the cost involved. GMs are encouraged to talk with the player about this equipment

Big game hunters will always have a high powered assault rifle, battle rifle, or sniper rifle for hunting, usually in 5.56x45mm, 7.62x39mm, 7.62x51mm, .30-06 Springfield, or .243 Winchester.

Explorers and field scientists will always have camping equipment, as well as adequate equipment to do calculations and equations in the field. Small kits are usually brought with them.

Housing

Housing can vary, depending on the type of adventurer. Some adventurers do not have homes; they live in their vehicles of choice or camp out in the stars, while others may have a small apartment.

Vehicle

An adventurer would possess a vehicle that cost 3 to 5 Capital.

Athlete

Athletes, regardless of type, are always nearby their athletic equipment of choice. Small first aid kits are also common, due to the inherent danger of competing.

Housing

Housing generally follows normal means. Professional athletes, depending on their success, can have anything from a small house to a large mansion.

Vehicle

An athlete would possess a vehicle that cost anywhere from 8 to 11 Capital.

Blue Collar

A blue collar character's equipment can vary wildly based on the job they perform. Blue collar characters will almost always have some kind of mechanical kit available to them, as well as a small first aid kit for on-the-job injuries.

Housing

Housing usually follows more conventional means. Blue collar characters may have small to large apartments, or small to medium houses.

Vehicle

A blue collar would possess a vehicle that cost 3 to 5 Capital.

Celebrity

A celebrity always has a smartphone, a camera, and any other indulgences they prefer, as well as any instruments they may need to perform.

Housing

Housing is almost always in the upper echelon, ranging from a large house to a large mansion.

Vehicle

A celebrity usually possess multiple vehicles, having plenty of capital to spend on vehicles as they wish.

Creative

Creative characters always have their medium of choice nearby whether that's paper, pens and pencils, a notebook computer, or a good DSLR camera.

Housing

Housing usually follows more conventional means. Creative characters may have small to large apartments, or small to medium houses.

Vehicle

A creative would possess a vehicle that cost 3 to 5 Capital.

Criminal

Criminals such as bank robbers, crime family soldiers, gang members, and drug dealers usually carry their weapon of choice, which is usually cheap, concealable, and powerful, as well as a kit that suits their job, such as a lockpicking kit for burglars and thieves, or a forgery kit for con artists. Pirates, regardless of the locale, are often armed with heavy automatic weapons.

Hitmen usually keep .22 Long Rifle, .32 ACP, or .25 ACP Pistols on hand, equipped with a threaded barrel and a suppressor, as well as sub-sonic ammunition.

Housing

Criminal housing can vary greatly, but it is usually on the lower end, in small to large apartments, to smaller houses.

Vehicle

A criminal would possess a vehicle that cost 3 to 5 Capital.

Doctor

Doctors of all types on call will always have plenty of medical supplies; however, when out of the office, their supplies will be limited to a small first aid kit.

Pharmacists would have access to a deluxe chemistry kit while at their main place of work.

Housing

Housing usually follows more conventional means. Doctors may have large apartments, or small to large houses.

Vehicle

A doctor would possess a vehicle that cost 3 to 7 Capital.

Emergency Services

Rescue workers, firefighters, paramedics, hazardous material handlers and emergency medical technicians all fall under this category.

Firefighters and rescue workers are issued a plastic helmet and a turnout coat as standard issue, with access to fire axes, fire extinguishers, sledgehammers, and other gear necessary to complete rescue operations in burning buildings.

EMTs and Paramedics are issued what is called a "Red Bag", which is a bag that contains multiple supplies for everything they may have to deal with as an EMT/Paramedic. Below is an example of a bag.

- Large Duffel Bag(Red Colored)
  - Standard First aid Kit (10/10 uses)
  - 3x Tourniquets
  - 2x Quick Splint
  - 8x Cold Packs
  - 10x Field Dressings
  - 2x Spray On Bandages
  - 2x Synthetic Blood Packs
  - 2x 3 Bleed hemostats
  - 5x 2d4 XHP Painkillers
  - 2x Standard Antiseptics
  - 3x 2d10+1 HP Opioids
  - 1x 3d10+1 HP Opioids
  - 6x Candybars

Housing

Housing usually follows more conventional means. Emergency Service characters may have small to large apartments, or small to medium houses.

Vehicle

An Emergency Service character would possess a vehicle that cost 3 to 5 Capital.

Entrepreneur

Entrepreneurs always have some form of computer on their person at one time, whether it be a smartphone or a notebook computer.

Housing

Housing usually follows more conventional means. Entrepreneurs may have small to large apartments, or small to large houses.

Vehicle

An entrepreneur would possess a vehicle that cost 5 to 9 Capital.

Investigative

Federal agents and police detectives are issued the badge of their respective departments, a backup or full-sized semi-automatic handgun in either 9x19mm, .38 Special, .357 Magnum, .357 Sig, .40 S&W, or .45 ACP that costs 30 Wealth Points or less, a pair of steel handcuffs and a tactical holster. They may take the Wealth Points given to them, and add their own money to purchase a more expensive firearm, as long as it meets the caliber requirements. The WP allocated for the issued firearm is for the firearm only, and does not cover any upgrades. Ammunition is provided for this firearm by the department, either FMJ or JHP (GM choice). Federal agents or police detectives will only be issued a handgun if they take the Personal Firearm Proficiency feat. The issued weapon does come with a condition however; that they act and perform in the role becoming of a proper agent or officer. A serious break to this code could result in consequences such as the weapon and position being revoked, the character being demoted in position, or in the most severe cases, the firing of the agent or officer.

Federal agents and police detectives have the Military and Police license for free, but any purchases using it must be approved by their superior officer (the GM).

Private investigators also carry firearms, usually sticking to either a backup or full-sized handgun.

Photojournalist and investigative reporters always have a camera of some type, such as a DSLR camera for photojournalists or a camcorder for investigative reporters.

Espionage agents are a special case. Because of the nature of their work most of the weapons they carry are procured during assignment, making any weapon a potential weapon. Espionage agents prefer smaller, more easily concealed weapons as a general rule.

Housing

Housing usually follows more conventional means, unless otherwise noted. Investigative characters may have small to large apartments, or small to large houses.

Vehicle

An investigative would possess a vehicle that cost 600 WP or less.

Law Enforcement

Police officers, state troopers, deputy sheriffs, and S.W.A.T. members are issued the badge and uniform of their respective departments, a backup or full-sized semi-automatic handgun in either 9x19mm,.38 Special, .357 Magnum, .357 Sig, .40 S&W, or .45 ACP that costs 30 Wealth Points or less, a pair of steel handcuffs and a tactical holster. They may take the Wealth Points given to them, and add their own money, and purchase a more expensive firearm, as long as it meets the caliber requirements. The Wealth Points allocated for the issued firearm are for the firearm and extra magazines or speedloaders only, and does not cover any upgrades. Ammunition is provided for this firearm by the department, either FMJ or JHP (GM choice). Police officers, state troopers, deputy sheriffs, or S.W.A.T. members will only be issued a handgun if they take the Personal Firearm Proficiency feat. The issued weapon does come with a condition however; that they perform in the role becoming to an officer. A serious break to this code could have the weapon and position revoked, a demoted position, or in the most severe cases, the firing of the agent or officer.

In addition to the service handgun officers are issued, police officers have access to the police armory, which will normally include ArmaLite AR-15s and Remington 700 rifles, Remington 870 Express Tactical shotguns, and Mossberg 590A1 and Shockwave model shotguns, as well as a well stocked ammunition depot, with boxes of 9x19mm, .38 Special, .357 Magnum, .40 S&W, .45 ACP, and 5.56x45mm FMJ and JHP rounds, and boxes of 12 gauge 00 buckshot and non-lethal rounds. The armory also has X26 tasers, taser cartridges, and extendable batons (light club) for issue.

S.W.A.T. team members have access to much heavier weapons, including sub-machine guns such as the H&K MP5A4 and MP5A5, UMP9, UMP40, UMP45, and FN P90, assault rifles such as the FN SCAR-L and SCAR-H, carbines such as the Colt M4A1, and M4, shotguns such as the Benelli M1, M2, M1014, Mossberg 590A1, Remington 870 Express Tactical and Remington 1100 Tactical, and sniper rifles such as the Remington 700 and the Accuracy International AWM. They also have grenades, such as tear gas, stun, sting, and concussion.

A concealable vest is issue for all police officers, state troopers, deputy sheriffs, and S.W.A.T. members while on duty and is turned in when off duty.

Military police are issued a uniform, a badge, and a sidearm based on their country and only possess this sidearm while on active duty.

United States Sig-Sauer P320 Full Size with three 17 round magazines.

United Kingdom Glock 17 with three 17 round magazines.

Canada Browning Hi-Power with three 13 round magazines.

Israel Jericho 941 with three 16 round magazines.

China Norinco QSZ-92 with three 15 round magazines.

Law enforcement personnel have the Military and Police license for free, but any purchases that require this license must be approved by their superior officer (the GM).

Housing

Housing usually follows more conventional means, unless otherwise noted. Law Enforcement characters may have small to large apartments, or small to large houses.

Vehicle

A law enforcement officer would possess a vehicle that cost 400 WP or less.

Military

Military personnel are issued fatigues of their branch, as well as a dress uniform, regardless of whether they are on or off duty. If a character is on active duty in a combat area or on assignment, the equipment for a character in the military profession is based on what branch, type of classification, and country they belong to. While on active duty in a combat area or on assignment military personnel have the Military and Police license for free.

Housing

Military personnel are usually an exception to housing. Those deployed usually stay in the barracks, or out in the field, while those on leave would have a home of any size, if they qualify to live off base.

Vehicle

Military personnel would possess a vehicle that cost 475 WP or less

Religious

Ordained clergymen own traditional garb and text of their religion, with little else to their name, while scholars and experts would be equipped just as academics would be.

Rural

Farm workers, hunters, and others who make a living in rural communities fall under this category.

Farm workers favor target and heavy handguns, lever action rifles, and shotguns of various gauges and types.

The preference of a hunter depends on what he is hunting. For small to medium game, a pistol caliber carbine or a .22 caliber rifle is more than sufficient. For medium to large game, a larger caliber rifle or a shotgun would be more suited.

Housing

Housing usually follows more conventional means, but because of the rural nature, tend to favor houses to apartments.

Vehicle

A rural character would possess a vehicle that cost 450 WP or less, specifically with some kind of modification to have it function well off road.

Student

Students will always have a computer of some type, their text of study, and a backpack to carry it all around in.

Housing

Students usually either live together in small to large apartments, or at home with guardians if they're not old enough to live by themselves.

Vehicle

Students usually don't have vehicles for themselves.

Security

Security personnel usually have at least a flashlight and radio to accompany their gear, and, if they deal with threats on a constant basis, a firearm. They also have handcuffs, to keep suspects secured so they do not attack innocents or them. Lesser security personnel will keep non-lethal weapons such as chemical irritants or tasers.

Housing

Housing usually follows more conventional means. Security characters may have small to large apartments, or small to large houses.

Vehicle

A security officer would possess a vehicle that cost 350 WP or less.

Technician

A technician's equipment depends on what kind of technician they are. A chemical engineer would have access to a deluxe chemistry kit on site, and a small chemical kit at their home. A mechanical engineer would have access to a deluxe mechanics kit on site, and a small mechanics kit at home. An electrical engineer would have access to a deluxe electronics kit on site, and a small electronics kit at home. A programmer or computer technician would have a notebook computer. A civil engineer would have his sketching and surveying equipment.

Housing

Housing usually follows more conventional means. Technicians may have small to large apartments, or small to large houses.

Vehicle

A technician would possess a vehicle that cost 450 WP or less.

Unemployed

An unemployed character doesn't have any other resource besides free time, the library computer, and the local want ads.

Housing

Unemployed characters are either barely making ends meet with their current funds, or are currently couch surfing with friends in their place of residence.

Vehicle

Unemployed characters don't have vehicles.

White collar

White collar characters would always have access to a computer, as well as any text that may be relevant to their job, as well as a company car.

Housing

Housing usually follows more conventional means. White collar characters will have a medium to large house, or a small mansion.

Vehicle

In addition to the company car, which is usually a full sized luxury vehicle of some type, white collar characters will also have a vehicle or two that cost 1500 WP or less.

All Occupations

Below are listings for equipment that all occupations could reasonably have. These are mostly guidelines and starting points for people to use.

IFAK

An IFAK is an individual first aid kit, carried by multitudes of people to have and use in case of emergencies. Below is a standard IFAK; many variants exist, but they usually all contain these components.

- Waist Pack (Usually red colored, but can be any color. A velcro "First aid" cross is also a common insignia on these bags)
  - 2x 3 Bleed hemostats
  - 2x Weak Antiseptic
  - 1x Tourniquet
  - 1x Quick Splint
  - 4x Field Dressing

Conceal Carry Setup

A conceal carry setup is a way for characters to carry weapons concealed, either legally when carrying a weapon is socially unacceptable, or illegally when carrying a weapon is legally unacceptable. A conceal carry setup usually contains two components; A holster or sheath, and a weapon.

- Belt Holster or Conceal Carry Holster (Usually chosen for their ability to be worn with ready access to the weapon, but Shoulder Holsters are also a fairly common sight)
  - A Small or smaller firearm, usually filled with Hollow Point or Semi Jacketed Hollow Point ammunition. (This can be any multitude of firearms, depending on the user's taste.)
  - A spare magazine or speed loader, filled with the same kind of ammunition as the firearm.
- Concealed Sheath
  - Small or smaller melee weapon, often with the Retractable upgrade.

Snipers

These rules are instructions and hints involved with playing a sniper, that includes focus and duties, types of snipers and the applicable gear they should and do use, and the aspects of snipers in games from both a player and GM standpoint.

What is a Sniper?

A sniper is a highly trained marksman who operates alone, in a pair, or with a sniper team to maintain close visual contact with the enemy and engage targets from concealed positions or distances exceeding the detection capabilities of enemy personnel. These sniper teams operate independently, with little combat asset support from their parent units.

Snipers come in two forms: Military Snipers and Police Snipers.

Military Snipers Military snipers are the generators of the definition of sniper. Military snipers are marked with high discipline, teamwork, and expert knowledge in snipercraft. Marksmanship is important, but their job usually entails being out in the field, watching and giving intelligence back to the main base and other squads, as well as providing overwatch and cover. Snipercraft, such as stealth, camouflage, movement, tracking and moving without being tracked, deep survival, and most importantly, patience, are heavily trained and have strict requirements that must be passed in training before a soldier can be called a sniper.

Military snipers are required work with others. A military sniper often attached to a unit, with a spotter. In addition to their rifle, they carry any other military equipment that would aid them in completing their mission. Most also carry a sidearm.

Police Snipers Police snipers are a much newer breed of sniper, compared to military. Instead of the focus on snipercraft, they instead focus on intelligence, and high risk engagements. They are usually covered by other officers when they are engaging a target, which negates the necessity for a lot of aspects that military snipers focus on. What they do focus on is marksmanship, and neutralizing a target in high risk situations. Another aspect that is unique to police snipers is the fact that they are often patrol officers, who perform all of the duties expected of a patrol officer, in addition to their S.W.A.T. and sniper duties when they are called on.

Police snipers, when on duty, often carry their policing equipment, with their S.W.A.T. gear in the trunk of their patrol car.

Sniper Basics

A sniper is no good without tools. The first and foremost important tool in a sniper's arsenal is his rifle. The rifle is rarely an off-the-shelf model, instead tuned and customized to that particular sniper's requirements and taste. It will have at least a 3× telescopic sight. It can be bolt action or semi-automatic, with semi-automatic becoming more popular. It is also chambered in a common, high-powered cartridge, such as the 7.62x51mm, 5.56x45mm, .338 Lapua Magnum, or .300 Winchester Magnum. Snipers should also invest in upgrades that increase the range and accuracy of their rifle, such as the heavy barrel upgrade, match barrel upgrade, and ergonomic stock upgrade.

Snipers should also invest in a good sidearm, since the main firearm is a long distance rife that performs poorly at close ranges. A good handgun or compact machine pistol makes a proper sidearm.

A sniper should place themselves and strive to have a majority of the engagement area to be within their second range increment, to maximize their effectiveness.

Playing a Sniper and GMing for a Sniper

Playing a sniper is vastly different from any other style of play. Snipers should only play their role when there is at least some time to setup and prepare for the oncoming battle. Instead of choosing a spot within the battlefield, a sniper will sit off-grid, at a specified distance from the battlefield, usually at a high vantage point if possible. For the purpose of ranging shots, a token will be placed on the corner of the battle map that represents the sniper's location, from that distance. Any shots taken by the sniper will be calculated from that spot, adding the distance the sniper is away from that point to the total range.

Snipers and spotters are also not a part of the standard Initiative. Instead of rolling for Initiative, Snipers and their spotters can choose to either be placed at the top of the Initiative, or the bottom, acting either before everyone else, or after everyone has.

Game Masters should be encouraged to give snipers plenty to do; spotting, relaying information about enemy location, taking out hard to reach or difficult targets. Sniping and spotting can be a boring but important job and it's the job of the GM to make sniping interesting and fun.

Setting Prices

Ops & Tactics uses a wealth system called Wealth Points, where 1 WP is equal to about 20 USD. This makes the setting of prices very easy. If a character wishes to purchase something that isn't in the book, you can set the price for it, based on Wealth Points. If it falls somewhere in the middle, always round up for the price. If the cost of the item is less than half a single Wealth Point, then the character can purchase multiples of the object, for a single Wealth Point.

Salary

Every character has a profession, and that profession provides them with a salary. Every two weeks in game time or when the GM thinks it's applicable, the players get to roll their salary. This is added to their total wealth point pool. It is assumed that when the characters are not adventuring, they are off doing their respective jobs, in the background.

Encounter Goals

Players receive experience points for overcoming obstacles that stand in the way of achieving the goals of the adventure. Feel free, however, to adjust the experience awards depending on how easily the players achieve an encounter goal.

Battle Value

Every encounter is rated with a Battle Value (BV), that indicates how challenging the encounter is expected to be. In general, an encounter with a Battle Value around the same as the characters is moderately challenging; difficult or dangerous enough to make the characters pay attention, but probably not life threatening if they're reasonably careful. A Battle Value of two to three times higher than the characters is a much more dangerous. On the other hand, minor encounters throughout the adventure might have a BV of two to three times lower than the characters. In addition to indicating challenge level, the BV is also used to determine the amount of experience characters get for succeeding in those encounters. When calculating battle value, it's usually best to consider the primary weapons the enemy may be presenting or has a high likelihood of using, as opposed to every weapon they may be carrying.

Determining Encounter Levels

Determining the level of an encounter involves four steps: determining the amount of opponents or hazards; calculating the overall Battle Value from those individual BVs; considering the threat level of the encounter; and considering the encounter circumstances.

Character Enemy	
Modifier	BV Worth
Character level	1×Level
Character has a weapon. . .	
Damage Dice Number	+1 Per Dice
Damage Dice Size	
D1, D2, D3	Weapon BV×1
D4, D6, D8	Weapon BV×1.5
D10, D12	Weapon BV×2
. . .that is a ranged weapon with. . .	
A Single Shot Firing Mode	+1
A Semi-Automatic Firing Mode[1]	+2
A Burst fire Firing Mode[1]	+3
A Fully Automatic Firing Mode[1]	+6
An Explosive[2]	+3
. . .that is a melee weapon with. . .	
Reach	+4
A non-standard effect or ability such as tripping	+3
Character is wearing. . .	
Light armor	+4
Medium armor	+5
Heavy armor	+6
Armor Plates	+3
Environments	
Slightly Hostile	Total BV×1.10
Moderately Hostile	Total BV×1.25
Severely Hostile	Total BV×1.50
Extremely Hostile	Total BV×2.00

1 These bonuses stack for multiple firing modes for a firearm

2 These bonuses stack for multiple instances of the equipment

Table 191: Encounter Level

Hostile Environments

A hostile environment is an environment that does not promote itself for combat, that can possess anything from distractions to an actively hostile hazards such as land mines. An example of a slightly hostile environment would be fighting out on populated city streets. A moderately hostile environment would be fighting in a densely populated mall. An example of a severely hostile environment would be fighting in the middle of a sandstorm. An example of an extremely hostile environment would be fighting in the middle of an active warzone.

Solving Conflicts and Roleplaying

Solving conflicts does not always have to involve guns, knives, and combat; solving the problems without getting anyone hurt or even into combat should be a very important and viable way to grow as a character. It is encouraged that GMs give BV for completing major and minor character goals, such as training, roleplay, and other interactions with the world at large.

Calculating XP Gain

There is one form of experience points: party experience. Party experience is given to all characters who participated in the battle, and is what they learn from being in combat.

- **Party** (Total Enemy BV)d2×25xp

Fractional BV is treated as 1 BV, for the purpose of XP gain. Fractional BV for the combat should be added up, and if the total amount is less than 1 BV, it should be rounded up to 1 BV.

Firearm Functionality

Firearm Basics

Different types of firearms accept ammunition in different ways. The box magazine is the most common method for loading modern firearms. The box magazine is essentially a detachable box that holds a number of ammunition cartridges. The magazine is inserted into a well on the weapon to load it. When the weapon is fired, it takes a cartridge from the magazine and sends the bullet down range. After firing, the action is cycled to load the next cartridge. In automatic weapons, this occurs mechanically as part of the firing cycle. When the magazine is empty, it is removed and replaced with a loaded one. Secondly, there are revolvers. Instead of getting ammunition from a box magazine, a revolver has a rotating cylinder that holds the ready ammunition. As the weapon is fired, the chamber revolves to advance the next cartridge to the firing position. Thirdly, there are belt fed weapons, which fire ammunition from interlinked belts. As the weapon is fired, the old belt link is moved to the side, and the link with the new ammunition comes forward. Finally, there is the internal magazine, holding ammunition in a non-detachable part of the weapon. Internal magazines include tubular magazines, which consists of a metal tube running along the barrel, usually underneath it, that holds the ready ammunition. As each bullet or shell is fired, a spring pushes the next cartridge in the tube back to be fed into the firing chamber. There are also blind magazines. Blind magazines are similar to a box magazines, except that they are built into the weapon and are not removed. Instead, the action is opened and cartridges are inserted directly into it. Tubular magazines are most common in shotguns, and blind magazines are used on some precision-target rifles or sniper rifles. After the weapon is loaded with ammunition, it must be cocked. This means that the bolt or hammer is drawn back into position and the first cartridge is loaded from the magazine into the firing chamber. The weapon is then ready to be fired.

Once the gun is loaded, the shooter pulls the trigger to fire it. Pulling the trigger sets the firing cycle in motion. The trigger mechanism moves an internal arm or lever, called the sear, which releases the weapon's hammer or firing pin. The hammer springs forward, striking the back of the cartridge where the primer is located. The impact detonates the primer, which in turn ignites the propellant and fires the projectile. With single shot weapons, that is all that happens. The user must then manually cycle the action, which accomplishes three things. First, the empty cartridge case is extracted and ejected from the weapon. Then, the next cartridge in the magazine feeds into the firing chamber, or the user reloads the firearm by hand. Finally, the bolt closes on the chamber, which seals it, cocks the firing pin back, and readies the weapon for firing again. Double shot weapons can be fired twice, one for each barrel, before this must take place. On auto-loading weapons (those that operate semi-automatically or automatically), this process of cycling is carried out by the mechanical action of the weapon. The action cycles by itself, driven either by the recoil force or the pressure from the propellant gases. For semi-automatics, the user simply pulls the trigger again to fire another shot and repeat the cycle, until the magazine is emptied and the weapon must be reloaded. On automatic designs, the action will continue to cycle and fire as long as the trigger is held down or until the weapon runs out of ammunition. Select-fire weapons are those capable of firing in either semi-automatic or automatic mode, as desired. Bolt, Pump, and Lever action weapons require the user to work the action themselves, to remove the used casing, and chamber a new round into the barrel, to be fired again. Single Action firearms require the hammer to be pulled back manually, which prepares for the next shot to be fired.

Any firearm that uses a box magazine, any lever action or pump action weapon, or semi-automatic firearms that have a single barrel and an internal magazine can carry an extra cartridge in the chamber. To put a cartridge in the chamber, the weapon is loaded as normal. (Chambering a round is part of the normal loading process.) Then the magazine is removed, an extra bullet or shell is added (to replace the one that was chambered), and the magazine is reinserted. This process takes 12 Combat Points. For lever action and pump action weapons, and internal magazine single barreled semi-automatic firearms, the weapon is loaded as normal. (Chambering a round is part of the normal loading process). Then an extra bullet or shell is added (to replace the one that was chambered), this process takes 4 Combat Points.

Generally, the closer a target is to the shooter, the easier it is to score a hit. The farther away a target is, the smaller it appears and the more difficult it is to hit. To counteract this difficulty, the use of telescopic scopes has become popular. A telescopic scope gives the shooter a magnified view of a distant target, facilitating aim. It also uses a targeting reticule or cross hair to identify the bullet's point of impact. When a scope is fitted to a rifle, it must be zeroed, meaning that it must be adjusted so that the cross hairs accurately show the actual impact point at a given range. This process requires the Personal Weapons Proficiency feat, and 5 bullets or shells, as well as somewhere to test fire the weapon.

Handguns

A handgun is a firearm designed to have the potential to be held and operated by one hand, although not necessarily used that way. This characteristic differentiates handguns as a general class of firearms from long guns such as rifles and shotguns (which are usually mounted against the shoulder). Major handgun subtypes are the revolver and pistol, and are split into various subtypes based on size and use.

There are handguns that are available to suit nearly any budget. Low-cost models featuring simple operating systems, crude manufacturing, and low-quality materials are widely produced, while more reliable and sophisticated service weapons that are suitable for more active use form the middle of the market. At the high end are advanced custom pistols, produced for Olympic-class target shooting, exclusive private collections, or specialized forces, such as SWAT.

Handguns differ from long guns in the fact that they are generally regarded as more personal weapons: The style, model, and even caliber, can tell quite a lot about a character, and they are generally selected by hand, rather than issued. Handgun selection generally mirrors personal preference out in combat, more so than long guns as a handgun is generally always worn, and only drawn when needed. They are also easier to conceal than a long gun, allowing for a seemingly unarmed appearance when worn with the correct holster and clothing. A handgun should always be chosen carefully, the character's personality, backstory, and preference should definitely have some sway and appearance in their choice.

Revolvers

A revolver is a repeating firearm that has a cylinder containing multiple chambers and at least one barrel for firing. Capacity for

a revolver can be as little as 3 rounds, and as many as 10, but 5 and 6 round cylinders are the most common. Revolvers predated semi-automatic pistols, praised in their time for their ability to fire multiple shots without reloading, nor resorting to having multiple barrels to do as such. Revolvers provide an advantage in the fact that a misfiring cartridge does not put a gunfighter out of commission; only a trigger pull is needed to advance to the next round. Revolvers are also generally less complicated on an end user level, being easier to maintain and operate, but much harder to repair. Revolvers, however, usually have low capacities, when compared to autoloading pistols (the highest capacity revolver at 10 rounds, is only the mid-level for an autoloading pistol), and nearly all models are unable to effectively use suppressors.

Revolvers themselves fall into various categories based on how they are cocked, and how they are loaded.

Single Action, Double Action, and Double Action Only With a single action revolver (SA), the hammer is manually cocked, usually with the thumb of the firing or supporting hand. This action advances the cylinder to the next round and locks the cylinder in place with the chamber aligned with the barrel. The trigger, when pulled, releases the hammer, which fires the round in the chamber. To fire again, the hammer must be manually cocked again. This is called "single action" because the trigger only performs a single action, of releasing the hammer. Because only a single action is performed and trigger pull is lightened, firing a revolver in this way allows most shooters to achieve greater accuracy. Additionally, the need to cock the hammer manually acts as a safety. The Colt Paterson Revolver, the Walker Colt, the Colt Dragoon and the Colt Single Action Army pistol of the American Frontier era are all good examples of this system. A single action revolver can be used to perform fanning attacks, where the supporting hand rapidly cocks the hammer back and the primary hand simply holds the trigger down, allowing for a volley of lead at a cost of accuracy.

With a double action (DA) revolver, the stroke of the trigger pull generates three actions: the hammer is pulled back to the cocked position, the cylinder begins to be indexed to the next round, and then the hammer is released to strike the firing pin. Thus double action means that a cocking action separate from the trigger pull is unnecessary; and every trigger pull will result in a complete cycle. This allows uncocked carry while also allowing draw-and-fire using only the trigger. A longer and harder trigger stroke is the trade-off, but this drawback can also be viewed as a safety feature, as the gun is safer against accidental discharges from being dropped.

Most double-action revolvers may be fired in two ways. The first way is single-action, exactly the same as a single-action revolver; the hammer is cocked with the thumb, which indexes the cylinder, and when the trigger is pulled, the hammer is tripped. The second way is double action.

Certain revolvers, called double action only (DAO), lack the latch that enables the hammer to be locked to the rear, and thus can only be fired in the double action mode. With no way to lock the hammer back, DAO designs tend to have bobbed or spurless hammers, and may even have the hammer completely covered by the revolver's frame. These are generally intended for concealed carrying, where a hammer spur could snag when the revolver is drawn. The potential reduction in accuracy in aimed fire or the ability to perform a fanning attack is offset by the increased capability for concealment.

Front Loading Revolvers The first revolvers were front loading, and were a bit like muskets in that the powder and bullet were loaded separately. These were caplocks or "cap and ball" revolvers, because the percussion cap method of priming was the first to be compact enough to make a practical revolver feasible. When loading, each chamber in the cylinder was rotated out of line with the barrel, and charged from the front with loose powder and an oversized bullet. Next, the chamber was aligned with the ramming lever underneath the barrel. Pulling the lever would drive a rammer into the chamber, which sealed it and held the ball and powder securely in place. Finally, the user would place percussion caps on the nipples on the rear face of the cylinder.

After each shot, a user was advised to raise his revolver vertically while cocking back the hammer so as to allow the fragments of the spent percussion cap to fall out safely. Otherwise, the fragments could fall into the revolver's mechanism and jam it. Caplock revolvers were also vulnerable to "chain fires", wherein hot gas from a shot ignited the powder in the other chambers. This could be prevented by sealing the chambers with cotton, wax, or grease.

Loading a cylinder in this manner was a slow and awkward process and generally could not be done in the midst of battle. Some soldiers solved this by carrying multiple revolvers in the field. Another solution was to use a revolver with a detachable cylinder design. These revolvers allowed the shooter to quickly remove a cylinder and replace it with a full one, much like how modern pistols use magazines.

Fixed Cylinder Revolvers In many of the first generation of cartridge revolvers (especially those that were converted after manufacture), the pin on which the cylinder revolved was removed, and the cylinder taken from the gun for loading. Later models used a loading gate at the rear of the cylinder that allowed one cartridge at a time to be accessed for loading, while a rod under the barrel could be pressed backwards to extract the fired case. Most revolvers using this method of loading are single action revolvers. The removable-cylinder design is employed in some modern "micro-revolvers" (usually in .22 caliber), in order to simplify their design. These weapons are small enough to fit in the palm of the hand.

The loading gate on the original Colt designs (and on nearly all single action revolvers since, such as the famous Colt Single Action Army) is on the right side, which was done to facilitate loading while on horseback; with the revolver held in the left hand, the cartridges can easily be ejected and loaded with the right.

Since the cylinder in these revolvers is firmly attached at the front and rear of the frame, and since the frame is typically full thickness all the way around, fixed cylinder revolvers are inherently strong designs. Because of this, many modern large caliber hunting revolvers tend to be based on the fixed cylinder design. Fixed cylinder revolvers can fire the strongest and most powerful cartridges, but at the price of being the slowest to load and cannot use speedloaders for loading, as one chamber is exposed at a time to the loading gate.

Top Break Revolvers The next method used for loading and unloading cartridge revolvers was the top break design. In a top break revolver, the frame is hinged at the bottom front of the cylinder. Releasing the lock and pushing the barrel down exposes the rear face of the cylinder. In most top break revolvers, this act also operates an extractor that pushes the cartridges in the chambers back far enough that they will fall free, or can be removed easily.

Fresh rounds are then inserted into the cylinder. The barrel and cylinder are then rotated back and locked in place, and the revolver is ready to fire.

Top break revolvers can be loaded more rapidly than fixed-frame revolvers, especially with the aid of speedloaders. However, this design is much weaker and cannot handle high pressure rounds. While this design is mostly obsolete today, supplanted by the stronger yet equally convenient swing out design, manufacturers have begun making reproductions of late 19th century designs for use in cowboy action shooting.

Swing Out Cylinder Revolvers The last and most modern method of loading and unloading is the swing out cylinder. The cylinder is mounted on a pivot that is coaxial with the chambers, and the cylinder swings out and down (to the left in most cases). An extractor is fitted, operated by a rod projecting from the front of the cylinder assembly. When pressed, it will push all fired rounds free simultaneously (as in top break models, the travel is designed to not completely extract longer, unfired rounds). The cylinder may then be loaded, singly or again with a speedloader, closed, and latched in place.

The pivoting part that supports the cylinder is called the crane; it is the weak point of swing out cylinder designs. Using the method often portrayed in movies and television of flipping the cylinder open and closed with a flick of the wrist can in fact cause the crane to bend over time, throwing the cylinder out of alignment with the barrel. Lack of alignment between chamber and barrel is a dangerous condition, as it can impede the bullet's transition from chamber to barrel. This gives rise to higher pressures in the chamber, bullet damage, and the potential for an explosion if the bullet becomes stuck.

The shock of firing can also put a great deal of stress on the crane, as in most designs the cylinder is only held closed at one point, the rear of the cylinder. Stronger designs use a lock in the crane as well as the lock at the rear of the cylinder. This latch provides a more secure bond between cylinder and frame, and allows the use of larger, more powerful cartridges. Swing out cylinders are rather strong, but not as strong as fixed cylinders, and great care must be taken with the cylinder when loading, so as not to damage the crane.

Single Shot and Semi-Automatic Pistols

A single shot pistol is a type of handgun which uses a single chamber and barrel, where the shot or cartridge is loaded in and then fired. A single shot pistol must be reloaded after every shot. Single shot handguns have generally fallen out of favor for revolvers and semi-automatic handguns because of their increased capacity and ease of loading, but still hold some value as last ditch and backup weapons. A semi-automatic pistol is a type of handgun which uses a single chamber and barrel, with a mechanism powered by the previous shot to load a fresh cartridge into the chamber. One round is fired each time the trigger of a semi-automatic pistol is pulled. A semi-automatic pistol harnesses the energy of one shot to reload the chamber for the next, typically via recoil operation, blowback, or gas operation. After a round is fired, the spent casing is ejected and a new round from the magazine is loaded into the chamber, allowing another shot to be fired as soon as the trigger is again pulled.

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Fixed Cylinder Revolvers In many of the first generation of cartridge revolvers (especially those that were converted after manufacture), the pin on which the cylinder revolved was removed, and the cylinder taken from the gun for loading. Later models used a loading gate at the rear of the cylinder that allowed one cartridge at a time to be accessed for loading, while a rod under the barrel could be pressed backwards to extract the fired case. Most revolvers using this method of loading are single action revolvers. The removable-cylinder design is employed in some modern "micro-revolvers" (usually in .22 caliber), in order to simplify their design. These weapons are small enough to fit in the palm of the hand.

The loading gate on the original Colt designs (and on nearly all single action revolvers since, such as the famous Colt Single Action Army) is on the right side, which was done to facilitate loading while on horseback; with the revolver held in the left hand, the cartridges can easily be ejected and loaded with the right.

Since the cylinder in these revolvers is firmly attached at the front and rear of the frame, and since the frame is typically full thickness all the way around, fixed cylinder revolvers are inherently strong designs. Because of this, many modern large caliber hunting revolvers tend to be based on the fixed cylinder design. Fixed cylinder revolvers can fire the strongest and most powerful cartridges, but at the price of being the slowest to load and cannot use speedloaders for loading, as one chamber is exposed at a time to the loading gate.

Top Break Revolvers The next method used for loading and unloading cartridge revolvers was the top break design. In a top break revolver, the frame is hinged at the bottom front of the cylinder. Releasing the lock and pushing the barrel down exposes the rear face of the cylinder. In most top break revolvers, this act also operates an extractor that pushes the cartridges in the chambers back far enough that they will fall free, or can be removed easily. Fresh rounds are then inserted into the cylinder. The barrel and cylinder are then rotated back and locked in place, and the revolver is ready to fire.

Top break revolvers can be loaded more rapidly than fixed-frame revolvers, especially with the aid of speedloaders. However, this design is much weaker and cannot handle high pressure rounds. While this design is mostly obsolete today, supplanted by the stronger yet equally convenient swing out design, manufacturers have begun making reproductions of late 19th century designs for use in cowboy action shooting.

Swing Out Cylinder Revolvers The last and most modern method of loading and unloading is the swing out cylinder. The cylinder is mounted on a pivot that is coaxial with the chambers, and the cylinder swings out and down (to the left in most cases). An extractor is fitted, operated by a rod projecting from the front of the cylinder assembly. When pressed, it will push all fired rounds free simultaneously (as in top break models, the travel is designed to not completely extract longer, unfired rounds). The cylinder may then be loaded, singly or again with a speedloader, closed, and latched in place.

The pivoting part that supports the cylinder is called the crane; it is the weak point of swing out cylinder designs. Using the method often portrayed in movies and television of flipping the cylinder open and closed with a flick of the wrist can in fact cause the crane to bend over time, throwing the cylinder out of alignment with the barrel. Lack of alignment between chamber and barrel is a dangerous condition, as it can impede the bullet's transition from chamber to barrel. This gives rise to higher pressures in the chamber, bullet damage, and the potential for an explosion if the bullet becomes stuck.

The shock of firing can also put a great deal of stress on the crane, as in most designs the cylinder is only held closed at one point, the rear of the cylinder. Stronger designs use a lock in the crane as well as the lock at the rear of the cylinder. This latch provides a more secure bond between cylinder and frame, and allows the use of larger, more powerful cartridges. Swing out cylinders are rather strong, but not as strong as fixed cylinders, and great care must be taken with the cylinder when loading, so as not to damage the crane.

Single Shot and Semi-Automatic Pistols A single shot pistol is a type of handgun which uses a single chamber and barrel, where the shot or cartridge is loaded in and then fired. A single shot pistol must be reloaded after every shot. Single shot handguns have generally fallen out of favor for revolvers and semi-automatic handguns because of their increased capacity and ease of loading, but still hold some value as last ditch and backup weapons. A semi-automatic pistol is a type of handgun which uses a single chamber and barrel, with a mechanism powered by the previous shot to load a fresh cartridge into the chamber. One round is fired each time the trigger of a semi-automatic pistol is pulled. A semi-automatic pistol harnesses the energy of one shot to reload the chamber for the next, typically via recoil operation, blowback, or gas operation. After a round is fired, the spent casing is ejected and a new round from the magazine is loaded into the chamber, allowing another shot to be fired as soon as the trigger is again pulled.

Most types of semi-automatic pistols rely on a removable magazine to store ammunition before it is fired, usually inserted inside the grip. These magazines can hold anywhere from 3 to 100 rounds, though magazines between 5 and 20 are most

common. Semi-automatic pistols provide an advantage in capacity, as they hold two to three times more than a revolver of similar size. Semi-automatic pistols are generally more complex to operate and maintain on an end user level, but easier to repair.

Semi-automatic pistols fall into various categories based on how they are cocked, and what kind of magazine they posses.

Single Action, Double Action/Single Action, Double Action Only, and Preset Action Typically, the first round is manually loaded into the chamber by pulling back and releasing ("racking") the slide mechanism. After the trigger is pulled and the round is fired, the recoil operation of the handgun automatically extracts and ejects the shell casing and reloads the chamber. This mode of operation generally allows for faster reloading, although semi-automatic pistols are potentially more prone to malfunctions than revolvers due to their more complex design and mechanism.

A single action (SA) semi-automatic pistol must be cocked by first operating the slide or bolt, or, if a round is already chambered, by cocking the hammer manually. The famed Colt M1911 is an example of this style of action. All SA semi-automatic pistols exhibit this feature, and automatically cock the hammer when the slide is first "racked" to chamber a round. A round can also be manually inserted in the chamber with the slide locked back. Then the safety can be applied.

Standard modern semi-automatic pistols are usually double action/single action (DA/SA). In this design, the hammer or striker may be either thumb-cocked or activated by pulling the trigger when firing the first shot. The hammer or striker is re-cocked automatically during each firing cycle. In double-action/single-action (DA/SA) pistols, the first pull of the trigger requires roughly twice as much pressure as subsequent firings, since the first pull of the trigger also cocks the hammer (if not already cocked by hand). The Beretta 92FS, a full-sized, service, semi-automatic pistol is an example of this style of action. A common mode of carry for DA/SA semi-automatic pistols is with the magazine full, a round chambered, and the gun holstered and uncocked with the external safety off.

A Preset Action (PA) is a blend of Single Action (SA), and Double Action/Single Action (DA/SA). Upon firing a cartridge or loading the chamber, the hammer or striker will rest in a partially cocked position. The trigger serves the function of completing the cocking cycle and then releasing the striker or hammer. While technically two actions, it differs from a double action trigger in that the trigger is not capable of fully cocking the striker or hammer. It differs from single action in that if the striker or hammer were to release, it would generally not be capable of igniting the primer. Preset actions also benefit in the fact that the first shot has the same trigger pressure as the subsequent shots, but have a downside where the slide must be racked if the round fails to fire, in order to reset the action.

Some modern semi-automatic pistols are double action only (DAO); that is, once a round is chambered, each trigger pull will cock the hammer, striker, or firing pin, and will additionally release the same to fire a cartridge in one continuous motion. Each pull of the trigger on a DAO semi-automatic pistol requires the same amount of pressure. The Kel-Tec P-32 is an example of a DAO action. DAO semi-automatic pistols are most generally recommended only in the smaller, self-defense, concealable pistols, rather than in target or hunting pistols. A notable exception are Glock pistols which optimize preset triggers (similar to DAO) but the striker is partially cocked back as the slide closes. This allows for significantly shorter trigger pulls than DAO. The trigger spring can be replaced with a lighter one and paired with a low-strength sear connector resulting in lightened trigger pulls to improve a shooter's accuracy.

Fixed and Removable Magazine Nearly all semi-automatic pistols use a removable magazine, which can be taken from the magazine well, reloaded, and then replaced in the pistol. This facilitates a much quicker reload time by carrying around more magazines that have been prefilled with ammunition. In most handguns, even with the magazine removed, it can still be fired if there is a round in the chamber.

The fixed pistol magazine generally uses stripper clips or loose rounds to reload a handgun, which is pushed into the internal magazine, and then stowed or tossed away. These are generally slower than removable magazine pistols, as the action generally has to be locked back before reloading, and if a character is caught in the middle of reloading, they can not fire. Reloading also has to be done after the firearm has completely expended all of its ammunition (or all of the ammunition has been removed), which doesn't allow for topping off rounds in a timely manner.

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Personal Defense Weapons

A personal defense weapon (PDW) is a compact semi-automatic or fully automatic firearm similar in most respects to a sub-machine gun, but firing a (often proprietary) rifle round, giving a PDW better range, accuracy and armor-penetrating capability than sub-machine guns, which fire pistol-caliber cartridges. The class of weapon as it exists today evolved as a hybrid between a sub-machine gun and a carbine, retaining the compact size and ammunition capacity of the former while adding the ammunition power, accuracy and penetration of the latter. For the context of this book, PDWs include sub-machine guns as well as machine pistols.

A machine pistol is a handgun-style, often magazine-fed and self-loading firearm, capable of fully automatic or burst fire, and normally chambered for pistol cartridges. The term is a literal translation of Maschinenpistole, the German term for a hand-held automatic weapon. While the dividing line between machine pistols and compact sub-machine guns is hard to draw, the term "sub-machine gun" usually refers to larger automatic firearms scaled down from a full-sized machine gun to fire handgun rounds, while the term "machine pistol" usually refers to a weapon built up from a semi-automatic pistol design. Machine pistols, however, break away from this definition with the new arrival of rifle caliber handguns, that are extremely cut down rifles, with a semi-automatic rate of fire, and lacking a stock.

In a law enforcement context, machine pistols are used by tactical police units such as SWAT teams or hostage rescue teams which are operating inside buildings and other cramped spaces, who need a small, concealable weapon with a high rate of fire. Bodyguards from police or government agencies sometimes carry concealed machine pistols when they are protecting high-risk VIPs. Criminal gang members such as narcotics traffickers also use machine pistols, typically guns which have been illegally converted to fire in a fully automatic fashion.

In a military setting, some countries issue machine pistols as personal defense side arms to infantry, paratroopers, artillery crews, helicopter crews, or tank crews. They have also been used in close quarters combat settings where a small weapon is needed.

A sub-machine gun is an automatic carbine, designed to fire pistol cartridges. It combines the automatic fire of a machine gun with the cartridge of a pistol, which allows for controllable automatic fire in a close setting. Sub-machine guns almost always have stocks, and are used like close ranged rifles.

In the early 20th century, experiments were made by converting stocked pistols from semi to fully automatic, thereby making machine pistols. Stocked automatic weapons firing pistol rounds were developed around the same time during World War I, by Italy, Germany, and the United States. The first dedicated designs were developed in the latter stages of World War I both as improvements on earlier stocked pistols, and to offer an advantage in trench warfare. They were popularized in the 1920s and 1930s as weapon of choice of American gangsters and police. Sub-machine guns rose to prominence as a front line close-quarters combat weapon and commando firearm during World War II. They are now widely used by police SWAT, military commando, paramilitary, and counter-terrorism team members for a variety of situations. Sub-machine guns are highly effective in close quarters; their lower-powered pistol cartridges make them generally more controllable in fully automatic fire compared to assault rifles, while their small size and light weight grant maneuverability. However, pistol cartridges generally have low effectiveness against targets protected by body armor or cover, and are short-ranged compared to intermediate and rifle cartridges.

Open vs. Closed Bolt

A semi or full automatic firearm is said to fire from an open bolt if, when ready to fire, the bolt and working parts are held to the rear. When the trigger is pulled the bolt goes forward, feeding a round from the magazine into the chamber and firing it. Like any other self-loading design without an external power supply, the action is cycled by the energy of the shot; this sends the bolt back to the rear, ejecting the empty cartridge case and preparing for the next shot. Generally, open bolt is used for automatic weapons and not for semi-automatic weapons.

Compared to a closed-bolt design, open bolt weapons generally have fewer moving parts. The firing pin is usually part of the bolt, saving on manufacturing costs. In automatic weapons an

open bolt helps eliminate the dangerous phenomenon known as "cook-off", wherein the firing chamber becomes so hot that rounds spontaneously fire without trigger input. Open-bolt designs typically operate much cooler than closed-bolt designs, making them more suitable for constant full automatic weapons such as machine guns.

Open bolt weapons are more prone to fire when dropped, and the open mechanism is more subject to picking up dirt when in the ready position, and so may require an additional ejector door or similar mechanism to exclude dust and dirt. Some open bolt designs can suffer "slamfire", in which bolt retention fails and the weapon discharges even with no trigger input. Open bolt weapons can not chamber a round in the barrel, and thus are restricted to the amount of the rounds in the magazines. Accuracy can suffer somewhat in an open bolt design, but this is generally less of a concern in automatic weapons.

A semi or full-automatic firearm which is said to fire from a closed bolt is one where, when ready to fire, a round is in the chamber and the bolt and working parts are forward. When the trigger is pulled the firing pin or striker fires the round, the action is cycled by the energy of the shot sending the bolt to the rear which extracts and ejects the empty cartridge case, the bolt then goes forward feeding a fresh round from the magazine into the chamber, ready for the next shot.

Closed bolt designs are more accurate for the first round and for semi-automatic fire, and don't have the movement of working parts to inhibit accuracy. The first round sits consistently in the chamber, which allows the topping off of a magazine, for +1 round. The action remaining closed the majority of the time prevents foreign debris from entering the gun.

Closed bolt weapons are generally more expensive to make, and they can suffer from cook-off. Closed bolt designs are typically seen in semi-automatic weapons, such as handguns, shotguns, and rifles.

Rifles

A rifle is a firearm designed to be fired from the shoulder, with a barrel that has a helical groove or pattern of grooves ("rifling") cut into the barrel walls. The raised areas of the rifling are called "lands," which make contact with the projectile, imparting spin around an axis corresponding to the orientation of the weapon. When the projectile leaves the barrel, this spin lends gyroscopic stability to the projectile and prevents tumbling, in the same way that a properly thrown American football or rugby ball behaves. This allows the use of aerodynamically-efficient pointed bullets (as opposed to the spherical balls used in muskets and shotguns) and thus improves range and accuracy. The word "rifle" originally referred to the grooving, and a rifle was called a "rifled gun." Rifles are used in warfare, hunting and shooting sports.

The rifle is the backbone of every modern infantry army, and nearly all countries have used them since the mid-1800s, which were a massive upgrade from the smoothbore muskets, which had troubles with accurate, precise fire because of their barrels. Rifles were initially single shot, muzzle-loading weapons. During the 18th century, breech-loading weapons were designed, which allowed the rifleman to reload while under cover, but defects in manufacturing and the difficulty in forming a reliable gas-tight seal prevented widespread adoption. During the 19th century, multi-shot repeating rifles using lever, pump or bolt actions became standard, further increasing the rate of fire and minimizing the fuss involved in loading a firearm. The problem of proper seal creation had been solved with the use of brass cartridge cases, which expanded in an elastic fashion at the point of firing and effectively sealed the breech while the pressure remained high, then relaxed back enough to allow for easy removal. By the end of the 19th century, the leading bolt action design was that of Paul Mauser, whose action—wedded to a reliable design possessing a five-shot magazine—became a world standard through two world wars and beyond. The Mauser rifle was paralleled by Britain's ten-shot Lee-Enfield and America's 1903 Springfield rifle models.

Rifles are split into categories by their size, accessories, actions, and use.

When selecting a rifle, a character should always consider many things, such as what the role they plan to play with that rifle, the ammunition type, caliber, and accessories they will take use of. Rifles are best complimented with a variety of upgrades, and should take full use of them. Rifles are less personal weapons, more utilitarian weapons that are used and employed when needed, and stowed away when not.

Bolt Action Bolt action is a type of firearm action in which the weapon's bolt is operated manually by the opening and closing of the breech (barrel) with a small handle, most commonly placed on the right-hand side of the weapon. As the handle is operated, the bolt is unlocked, the breech is opened, the spent cartridge case is withdrawn and ejected, the firing pin is cocked (this occurs either on the opening or closing of the bolt, depending on design), and finally a new round/cartridge is placed into the breech and the bolt closed. Bolt action firearms are most often rifles, but there are some bolt action shotguns as well. Examples of this system date as far back as the early 19th century, notably in the Dreyse needle gun. From the late 19th century, all the way through both World Wars, the bolt action rifle was the standard infantry firearm for most of the world's militaries.

In military and law enforcement use, the bolt action has been mostly replaced by semi-automatic and selective fire weapons, though the bolt action remains the dominant design in sniper rifles. Bolt action firearms are still very popular for hunting and target shooting. Compared to most other manually operated firearm actions, it offers an excellent balance of strength (allowing powerful chamberings), ruggedness, reliability, and potential accuracy, all with light weight and low cost. The major disadvantage is a marginally lower practical rate of fire than other manual repeating firearms, such as lever action and pump action, and a far lower practical rate of fire than semi-automatic weapons, but this is not an important factor in many types of hunting and target shooting.

Lever Action Lever action is a type of firearm action which uses a lever located around the trigger guard area, (often including the trigger guard itself) to load fresh cartridges into the chamber of the barrel when the lever is worked. Most lever action firearms are rifles, but lever action shotguns and a few pistols have also been made. One of the most famous lever action firearm is undoubtedly the Winchester rifle, but many manufacturers—notably Marlin and Savage—also produce lever action rifles.

While lever action rifles were (and are) popular with hunters and sporting shooters, they were not widely accepted by the military. One significant reason for this was that it is harder to fire a lever action from the prone position (compared to a bolt-action rifle), and while nominally possessing a greater rate of fire than bolt-action rifles, lever action firearms are also generally fed from a tubular magazine, which limits the ammunition that can be used

in them. Pointed center fire Spitzer bullets, for example, can cause explosions in a tubular magazine, as the point of each cartridge's projectile rests on the primer of the next cartridge in the magazines. The tubular magazine may also have a negative impact on the harmonics of the barrel, which limits the theoretical accuracy of the rifle. A tubular magazine under the barrel also pushes the center of gravity forward, which alters the balance of the rifle in ways that are undesirable to some shooters. However there are some lever rifles, such as the Winchester Model 1895 which saw service with the Russian Army in World War I, that use a box magazines.

Due to the higher rate of fire and shorter overall length than most bolt action rifles, lever actions have remained popular to this day for sporting use, especially short- and medium-range hunting in forests, scrub, or bushland. Lever action firearms have also been used in some quantity by prison guards in the United States, as well as by wildlife authorities/game wardens in many parts of the world. An additional advantage over typical bolt-action rifles is the lack of handedness: lever actions like pump-actions are frequently recommended as ambidextrous in sporting guidebooks.

Pump Action A pump action rifle is one in which the handgrip can be pumped back and forth in order to eject a spent round of ammunition and to chamber a fresh one. It is much faster than a bolt-action and somewhat faster than a lever action, as it does not require the trigger hand to be removed from the trigger whilst reloading.

The cycling time of a pump action is quite short, often less than that of some semi-automatic designs. The manual operation gives a pump action the ability to cycle rounds of widely varying power that a gas or recoil operated firearm would fail to cycle. The simplicity of the pump action relative to a semi-automatic design also leads to improved durability and lower cost. It has also been noticed that the time taken to work the action allows the operator to identify and aim on a new target, avoiding a “spray and pray” usage. An advantage of the pump action over the bolt-action is its ease of use by both left- and right-handed users: like lever actions, pump-actions are frequently recommended as ambidextrous in sporting guidebooks.

Like most lever action rifles, most pump action rifles do not use a detachable magazines. This makes for slow reloading, as the cartridges have to be inserted individually into the firearm, which can take more time to reload.

Self Loading A semi-automatic, or self-loading rifle is a weapon which performs all steps necessary to prepare the weapon to fire again after firing—assuming cartridges remain in the weapon’s feed device or magazines. Typically, this includes extracting and ejecting the spent cartridge case from the weapon’s firing chamber, re-cocking the firing mechanism, and loading a new cartridge into the firing chamber. Although automatic weapons and selective fire firearms do the same tasks, semi-automatic firearms do not automatically fire an additional round until the trigger is released and re-pressed by the person firing the weapon.

While all basic firearm actions require the action to be cycled manually before the first shot, semi-automatic as well as automatic and selective fire actions are differentiated from other forms such as pump-action, bolt action, or lever action firearms by eliminating the need to manually cycle the weapon after each shot. For example, to fire ten rounds from a semi-automatic firearm or a selective fire weapon set to fire semi-automatically, the action would initially be cycled to load the first round and the trigger would need to be pulled ten times (once for each round fired). For the other forms, the weapon’s mechanism would require cycling manually prior to firing the next round. An automatic or a selective fire weapon set to fire automatically would be able to fire continuously as long as the trigger is held until the magazine or feed device runs out of ammunition.

Advantages of this type of action is that the weapon can fire much faster than any other type of action, without having to break sights on the target in order to ready another round.

The disadvantage are that a self loading weapon is almost always more mechanically complex than any other type of action, and requires more maintenance.

Carbines

A carbine is a longarm similar to, but shorter than, a rifle. Many carbines are shortened versions of full rifles, firing the same ammunition at a lower velocity due to a shorter barrel length, and as such, the range for carbines is usually less than their rifle counterparts.

The smaller size and lighter weight of carbines makes them easier to handle in close-quarter situations such as urban or jungle warfare, or when deploying from military vehicles. The disadvantages of carbines relative to rifles include inferior long-range accuracy and a shorter effective range. Being larger than a submachine gun, they are harder to maneuver in tight encounters where superior range and stopping power at distance are not great considerations. Firing the same ammunition as rifles gives carbines the advantage of standardization over those personal defense weapons (PDWs) that require proprietary cartridges.

One of the more unusual classes of carbine is the pistol caliber carbine. These first appeared soon after metallic cartridges became common. These were developed as "companions" to the popular revolvers of the day, firing the same cartridge but allowing more velocity and accuracy than the revolver.

The primary advantages of a pistol caliber carbine are increased accuracy due to the buttstock and longer barrel (and with it, sight radius), relatively low muzzle blast/flash/recoil, higher muzzle velocity and energy of a longer barrel for increased wounding potential and penetration (depending on the particular load used), and greater adaptability for easily accepting accessories such as optics, weapon lights, and lasers.

One less-noted advantage of PCCs is their lower muzzle report compared to more powerful rifles; because they are less noisy when fired, they are less likely to cause permanent hearing damage when fired indoor without hearing protection - this can be an important consideration during home defense situations.

Compared to "regular" carbines/rifles (such as those in .223 Rem and 7.62x39mm), pistol-caliber carbines may suffer from a shorter effective range, more pronounced trajectory, less power, and less effectiveness against body armor.

Carbines are issued to high-mobility troops such as special-operations soldiers and paratroopers, as well as to mounted, supply, or other non-infantry personnel whose roles do not require full-sized rifles. Carbine rifles go well with tactical slings, or patrol slings, and the same accessories that would be outfitted on a full size rifle.

Assault, Battle, and Target Rifles

An assault rifle is an automatic rifle that Uses an intermediate cartridge and a detachable magazine. Assault rifles are the standard infantry weapons in most modern armies. Assault rifles are categorized in between light machine guns, which are intended more for sustained automatic fire in a light support role, and sub-machine guns, which fire a pistol cartridge rather than a rifle cartridge.

The term assault rifle is a translation of the German word Sturmgewehr (literally "storm rifle", as in "to storm a position"). The name was coined by Adolf Hitler to describe the Maschinenpistole 43, subsequently renamed Sturmgewehr 44, the firearm generally considered the first assault rifle that served to popularize the concept and form the basis for today’s modern assault rifles.

The translation assault rifle gradually became the common term for similar firearms sharing the same technical definition as the StG 44. In a strict definition, a firearm must have at least the following characteristics to be considered an assault rifle: it must be an individual weapon with provision to fire from the shoulder (i.e. a buttstock); It must be capable of selective fire, It must have an intermediate-power cartridge: more power than a pistol but less than a standard rifle or battle rifle, its ammunition must be supplied from a detachable magazine rather than a feed-belt, and it should at least have a firing range of 300 meters (1000 feet). Rifles that meet most of these criteria, but not all, are technically not assault rifles despite frequently being considered as such. For example, semi-automatic-only rifles that share designs with assault rifles are not assault rifles, as they are not capable of switching to automatic fire and thus are not selective fire capable, and are noted as target rifles. Belt-fed weapons or rifles with fixed magazines are likewise not assault rifles because they do not have detachable box magazines.

The term "assault rifle" is often more loosely used for commercial or political reasons to include other types of arms, particularly arms that fall under a strict definition of the battle rifle, or semi-automatic variant of military rifles such as AR-15s.

The US Army defines assault rifles as “short, compact, selective-fire weapons that fire a cartridge intermediate in power between sub-machinegun and rifle cartridges.”

A battle rifle is a military service rifle that fires a full power rifle cartridge, such as 7.62x51mm. While the designation of battle rifle is usually given to post-World War II select fire infantry rifles such as the H&K G3, the FN FAL, or the M14, this term can also apply to older military bolt action or semi-automatic rifles such as the Mauser 98k or the M1 Garand. The battle rifle’s power and long-range accuracy are intended to engage targets at long distances, but this comes with a trade-off of length and weight that make it relatively cumbersome in close-quarter combat.

Recently, however, there has been a general backlash against carbines and light rifles in many armies around the world due to their having less range, penetration, and power than battle rifles. Recent conflicts in desert environments have underscored the need for greater range while developments in body armor have created a need for more powerful munitions. A consequence of this was the creation of the Squad Designated Marksman program in the U.S. Army and the Squad Advanced Marksman in the U.S. Marine Corps. The role of the designated marksman is to fill the "marksmanship gap" between the rifleman and the sniper. Instead of relying on the use of smaller, lighter weapons with a higher rate of fire to hit a target, these programs place greater emphasis on marksmanship training, allowing the squad to take advantage of the greater range and power of heavier weapons. This has marked the return of battle rifles in the form of marksman rifles, which are discussed next section.

Target rifles are semi-automatic rifles that use a varying degrees of cartridges, from the lighter assault rifle cartridges, to the heavier battle rifle cartridges. Target rifles may retain and appear to be exactly like assault and battle rifles, even down to having part and magazine compatibility, but target rifles have a semi-automatic rate of fire only.

Assault rifles, battle rifles, and target rifles go well with a multitude of upgrades based on their use, and can take advantage of a wide variety of upgrades.

Designated Marksman Rifles

A designated marksman rifle (DMR) is the weapon used by soldiers in the designated marksman role. The DM role fills the gap between a regular infantryman and a sniper and DMRs have been developed with this middle ground in mind.

These rifles have to be effective, in terms of accuracy and terminal ballistics, at ranges exceeding those of ordinary assault rifles, but do not require the extended range of a dedicated sniper rifle.

DMRs, however, often share some basic characteristics with sniper rifles in difference to the weapons carried by others in the DMs unit. DMRs may have an attached telescopic sight, quickly deployed stabilizing bipod to allow optimized accuracy and low-recoil in temporarily fixed situations or an adjustable stock. They will, though, generally retain semi-automatic firing capability (more rapid than bolt-action sniper rifles) and a larger magazine capacity of 10, 20, or 30 rounds depending on the firearm in question.

Bolt Action and Sniper Rifles

In military and law enforcement terminology, a sniper rifle is a precision rifle used to ensure more accurate placement of bullets at longer ranges than other small arms. A typical sniper rifle is built for optimal levels of accuracy, fitted with a telescopic sight and chambered for a military centerfire cartridge. The term is often used in the media to describe any type of accurized firearm fitted with a telescopic sight that is employed against human targets, although "sniping rifle" or "sniper’s rifle" is the technically correct fashion to refer to such a rifle.

The military role of a sniper, dates back to the turn of the 18th century, but the true sniper rifle is a much more recent development. Advances in technology, specifically that of telescopic sights and more accurate manufacturing, allowed armies to equip specially trained soldiers with rifles that enable them to deliver precise shots over greater distances than regular infantry weapons. The rifle itself could be based on a standard rifle (at first, a bolt action rifle); however, when fitted with a telescopic sight, it becomes a sniper rifle.

Modern Sniper Rifles can be divided into two classes: Military and Law Enforcement

- **Military** Sniper rifles aimed at military service are often designed for very high durability, range, reliability, sturdiness, serviceability, and repairability under adverse environmental and combat conditions, at the sacrifice of a small degree of accuracy. Military snipers and sharpshooters may also be required to carry their rifles and other equipment for long distances, making it important to minimize weight. Military organizations often operate under strict budget constraints, which influences the type and quality of sniper rifles they purchase.

- **Law Enforcement** Sniper rifles built or modified for use in law enforcement are generally required to have the greatest possible accuracy, more than military rifles, but do not need to have as long a range. As law enforcement-specific rifles are usually used in non-combat (often urban) environments, they do not have the requirement to be as hardy or portable as military versions; nevertheless they may be smaller, as they do not need very long range. Some of the first sniper rifles designed specifically to meet police and other law-enforcement requirements were developed for West German police after the Munich massacre at the

1972 Summer Olympics. Many police services and law enforcement organizations (such as the U.S. Secret Service) now use rifles designed for law enforcement purposes.

Bolt action rifles and sniper rifles, because of their use, will almost always use a scope of high magnification (at least x3),and a bipod. Accessories such as lasers, custom built stocks, and modified barrels are often built in as well, to achieve the best possible shot.

Anti-Materiel Rifles

An Anti-materiel rifle is a rifle designed to destroy at hard targets, such as equipment, vehicles, and weapons, rather than at other combatants. Anti-materiel rifles are similar in form and appearance to modern sniper rifles and can often serve in that role, though they are usually chambered for cartridges more powerful than are normally required for neutralizing a human and can operate at a greater range. In general, anti-materiel rifles are chambered for 12.7x99mm NATO (.50 BMG), 12.7x108mm Russian, 14.5x114mm Russian, and 20mm cartridges. The large cartridges are required to be able to fire projectiles containing usable payloads such as explosives, armor-piercing cores, and incendiaries.

Due to the considerable size and weight of anti-materiel rifles and other support equipment, sniper cells operating in 2- or 3-man or larger teams become a necessity. The recoil produced by the employed cartridges dictates that these rifles are designed to be fired from the prone position. Bipods and muzzle brakes are used as accessories to employ these rifles as comfortably and accurately as possible. Firing several 12.7x99mm NATO, 12.7x108mm Russian, or larger calibers from the standing position or in a kneeling position would be very uncomfortable for the operator.

Bipods are mandatory, and various telescopic sights, tactical slings, patrol slings, and ergonomic stocks are all suitable for anti-materiel rifles.

Shotguns

"Over the centuries, mankind has tried many ways of combating the forces of evil... prayer, fasting, good works and so on. Up until Doom, no one seemed to have thought about the double-barrel shotgun. Eat leaden death, demon." —Terry Pratchett

A shotgun (also known as a scattergun and peppergun, or historically as a fowling piece) is a firearm that is usually designed to be fired from the shoulder, which uses the energy of a fixed shell to fire a number of small spherical pellets called shot, or a solid projectile called a slug. Shotguns come in a wide variety of sizes, ranging from .22 inch bore up to 2 inch bore, and in a range of firearm operating mechanisms, including breech loading, single-barreled, double or combination gun, pump action, bolt, and lever action, semi-automatic, and even fully automatic variants.

A shotgun is generally a smoothbore firearm, which means that the inside of the barrel is not rifled. Preceding smoothbore firearms, such as the musket, were widely used by armies in the 18th century. The direct ancestor to the shotgun, the blunderbuss, was also used in a similar variety of roles from self defense to riot control. It was often used by cavalry troops due to its generally shorter length and ease of use, as well as by coachmen for its substantial power. However, in the 19th century, these weapons were largely replaced on the battlefield with breechloading rifled firearms, which were more accurate over longer ranges. The military value of shotguns was rediscovered in the First World War, when American forces used 12 Gauge pump action shotguns in close-quarters trench fighting to great effect. Since then, it has been used in a variety of roles in civilian, law enforcement, and military applications.

The shot pellets from a shotgun spread upon leaving the barrel, and the power of the burning charge is divided among the pellets, which means that the energy of any one ball of shot is fairly low. In a hunting context, this makes shotguns useful primarily for hunting birds and other small game. However, in a military or law enforcement context, the large number of projectiles makes the shotgun useful as a close quarters combat weapon or a defensive weapon. Shotguns are also used for target shooting sports such as skeet, trap, and sporting clays.

Shotguns are widely used as a support weapon by police forces. One of the rationales for issuing shotguns is that even without much training, an officer will probably be able to hit targets at close to intermediate range, due to the "spreading" effect of buckshot. This is mainly a myth, due to the fact that the spread of shotgun at 25 feet, averages 8 inches, being very capable of missing a target. Some police forces are replacing shotguns in this role with carbine rifles such as AR-15s. Shotguns are also used in roadblock situations, where police are blocking a highway to search cars for suspects. Law enforcement agencies often use riot shotguns, especially for crowd and riot control where they may be loaded with less-lethal rounds. Shotguns are also often used as breaching devices to defeat locks.

The downside to shotguns, is that the shot quickly expends its energy as the pellets fly farther, making them poor long range weapons, and even less-than-desirable medium range weapons. Shotguns, unlike any other weapon in Ops and Tactics, have their range penalties affect both their total damage, as well as their attack bonus.

Shotguns, like rifles, are separated by their actions.

Break Action For most of the history of the shotgun, the break action breech loading double was the most common type, typically divided into three subtypes: the traditional "side-by-side" shotgun features two barrels mounted one beside the other (as the name suggests), the "over-and-under" shotgun has the two barrels mounted one on top of the other, and the single barrel shotgun. Side-by-side shotguns were traditionally used for hunting and other sporting pursuits (early long barreled side-by-side shotguns were known as Fowling Pieces for their use hunting ducks and other birds), whereas over and under shotguns are more commonly associated with sporting use (such as clay pigeon/skeet shooting). Both types of double-barrel shotgun are used for hunting and sporting use, with the individual configuration largely being a matter of personal preference. Single barrel shotguns can be used for either use as well, but the single shot doesn't permit a user to participate in certain types of clay shooting.

Most break action shotguns have two triggers, allowing the user to fire the barrel they prefer, which each may be loaded with different loads, or fire both barrels at the same time, for twice the load at a target. The downside to having two separate triggers is that the user must shift their hand in order to be able to manipulate each trigger. A newer style is to have a single trigger that fires one barrel first, then the other, in a predetermined sequence, that is reset when the action is broken and reloaded. The advantage to this is that the user doesn't have to shift their grip in order to fire quickly, but looses the ability to fire both barrels at once.

Pump Action In pump action shotguns, a sliding forearm handle (the pump) works the action, extracting the spent shell

and inserting a new one while cocking the hammer or striker as the pump is worked. A pump gun is typically fed from a tubular magazine underneath the barrel, which also serves as a guide for the pump. The rounds are fed in one by one through a port in the receiver, where they are lifted by a lever called the elevator and pushed forward into the chamber by the bolt. A pair of latches at the rear of the magazine hold the rounds in place and facilitate feeding of one shell at a time. If it is desired to load the gun fully, a round may be loaded through the ejection port directly into the chamber, or cycled from the magazine, which is then topped off with another round. Well-known examples include the Winchester Model 1897, Remington 870, and Mossberg 500/590.

Pump action shotguns are common hunting, fowling, and sporting shotguns. Hunting models generally have a barrel between 24 and 28 inches. They can also easily be used with an empty magazine as a single shot weapon, by simply dropping the next round to be fired into the open ejection port after the spent round is ejected. Pump action shotguns with shorter barrels and no barrel choke (or very little) are highly popular for use in home defense, military and law enforcement, and are commonly known as riot guns. The minimum barrel length for shotguns in most of the U.S. is 18" and this barrel length is the primary choice for riot shotguns. The shorter barrel makes the weapon easier to maneuver around corners and in tight spaces, though slightly longer barrels are sometimes used outdoors for a tighter spread pattern or increased accuracy of slug projectiles. Home defense/law enforcement shotguns are usually chambered for 12 gauge shells, providing maximum shot power and the use of a variety of projectiles such as 00 Buckshot, rubber, beanbag, and slug shells, but 20 gauge (common in bird-hunting shotguns) or .410 (common in youth-size shotguns) are also available in defense-type shotgun models allowing easier use by novice shooters.

A riot shotgun has many advantages over a handgun or rifle. Compared to "defense-caliber" handguns (chambered for 9x19mm Parabellum, .38 Special, .357 Magnum, .40 S&W, .45 ACP and similar), a shotgun has far more power and damage potential, allowing a "one-shot stop" that is more difficult to achieve with typical handgun loads. Compared to a rifle, riot shotguns are easier to maneuver due to the shorter barrel, still provide better damage potential at indoor distances (generally 3-5 meters/yards), and reduce the risk of "overpenetration"; that is, the bullet or shot passing completely through the target and continuing beyond, which poses a risk to those behind the target through walls. The wide spread of the shot reduces the importance of shot placement compared to a single projectile, which increases the effectiveness of "point shooting" - rapidly aiming simply by pointing the weapon in the direction of the target. This allows easy, fast use by novices.

Pump action shotguns lacking a trigger disconnector can be slamfired, on purpose or otherwise, if the trigger is kept depressed whilst cycling the action. This permits a user to rapidly spray shells onto a target area and perform slamfire attacks.
Pump action shotguns have no attack bonus or penalty.

Lever Action Early attempts at repeating shotguns invariably centered around either bolt or lever action designs, drawing inspiration from contemporary repeating rifles, with the earliest successful repeating shotgun being the lever action Winchester M1887, designed by John Browning at the behest of the Winchester Repeating Arms Company.

Lever shotguns, while less common, were popular in the late 19th century with the Winchester Model 1887 and Model 1901 being prime examples. Initially very popular, demand waned after the introduction of pump action shotguns at the turn of the century, and production was eventually discontinued in 1920.

One major issue with lever actions (and to a lesser extent pump actions) was that early shotgun shells were often made of paper or similar fragile materials (modern hulls are plastic or metal). As a result the loading of shells, or working of the action of the shotgun, could often result in cartridges getting crushed and becoming unusable, or even damaging the gun.

Lever shotguns have seen a return to the gun market in recent years, however, with Winchester producing the Model 9410 (chambering the .410 bore shotgun shell and using the action of the Winchester Model 94 series lever action rifle, hence the name), and a handful of other firearm manufacturers producing versions of the Winchester Model 1887/1901 designed for modern 12 Gauge smokeless shotshells with more durable plastic casings.

Autoloading Gas, inertia, or recoil operated actions are other popular methods of increasing the rate of fire of a shotgun; these are generally referred to as autoloaders or semi-automatics. Instead of having the action manually operated by a pump or lever, the action automatically cycles each time the shotgun is fired, ejecting the spent shell and reloading a fresh one into the chamber. The first successful semi-automatic shotgun was John Browning's Auto-5, first produced by Fabrique Nationale beginning in 1902. Other well-known examples include the Remington 1100, Benelli M1, and Saiga-12.

Some, such as the Franchi SPAS-12 and Benelli M3, are capable of switching between semi-automatic and pump action. These are popular for two reasons; first, some jurisdictions forbid the use of semi-automatic actions for hunting, and second, lower-powered rounds, like many less lethal cartridges, have insufficient power to reliably cycle a semi-automatic shotgun.

Autoloading shotguns also encompasses shotguns that are fully automatic, such as the Daewoo USAS-12 and the AA-12.

Machine Guns

A machine gun is a fully automatic mounted or portable firearm, usually designed to fire rounds in quick succession from an ammunition belt or large-capacity magazine, typically at a rate of several hundred rounds per minute.

Machine guns are generally categorized as machine guns or autocannons. Machine guns are often portable to a certain degree, but is generally used when mounted on a stand or fired from the ground on a bipod. Light machine guns are small enough to be fired and hand held like a rifle, but the gun is more effective when fired from a prone position, while general purpose machineguns are almost always too heavy to be fired and held like a rifle, and are near required to be fired with support. The difference between machine guns and autocannons is based on caliber, with autocannons using calibers larger than 16mm.

Man-portable machine guns are split into two categories: light and general purpose. Light machine guns are often used as squad automatic weapons, automatic weapons used to give infantry squads a portable source of automatic, focused fire, that can be carried and maintained by one member of the unit, while general purpose machine guns, which can be used by one person, usually benefit greatly by having other soldiers help in the aspect of reloading, barrel changing, and carrying ammunition, because of the weight.

The machine gun's primary role in modern ground combat is to provide suppressive fire on an opposing force's position, forcing the enemy to take cover and reducing the effectiveness of his fire. This either halts an enemy attack or allows friendly forces to attack enemy positions with less risk. Because of this, most machine guns do not even posses a selector switch, and fire in automatic only mode.

Machine guns that used linked ammunition can sometimes equip ammo boxes to hold the rounds.

Grenade Launchers, Rocket Launchers, and Mortars

A grenade launcher or grenade discharger is a weapon that launches a grenade with more accuracy, higher velocity, and to greater distances than a soldier could throw it by hand. Grenade launchers can either come in the form of standalone weapons (either single-shot or repeating) or attachments mounted under the barrel of a rifle. Some rifles have been designed to fire rifle grenades, either from their muzzle or from a detachable muzzle-mounted launcher.

Most grenade launchers are man-portable, shoulder-fired weapons issued on a squad level, though larger launchers are sometimes mounted on armored vehicles. The most common grenade round in use by modern militaries is the 40 mm fragmentation grenade, which is effective against a wide range of targets including infantry and lightly armored vehicles. The ability of the grenade launcher to loft payloads in a high arc has resulted in many specialty grenades such as less-lethal sponge grenades.

A rocket launcher is any device that launches a rocket-propelled projectile, although the term is often used in reference to mechanisms that are portable and capable of being operated by an individual. Weapon systems that fall into this category include the shoulder-launched missile weapon, the wider international term for any weapon that fires a rocket-propelled projectile at a target, yet is small enough to be carried by a single person, and fired while held on one's shoulder. However, the term bazooka, is also often used for any shoulder-launched rocket weapon.

Specific types of rocket launchers within this group include the rocket-propelled grenade, better known as the RPG, which is a type of shoulder-launched anti-tank weapon designed by the Soviet Union; the anti-tank guided missile, a guided missile primarily designed to hit and destroy heavily-armored tanks and other armored fighting vehicles; and the man-portable air-defense systems, which provides shoulder-launched surface-to-air missiles.

A mortar is an indirect fire weapon that fires explosive projectiles known as mortar bombs at low velocities, short ranges, and high-arcing ballistic trajectories. It is typically muzzleloading. A mortar is relatively simple and easy to operate. A modern mortar consists of a tube into which gunners drop a purpose-designed bomb. The tube is generally set at between 45 and 85 degrees angle to the ground, with the higher angle giving shorter firing distances. The bomb has no cartridge case; the propellant is attached to the bomb's fins. When it reaches the base of the tube it hits a firing pin, which detonates the propellant and fires the projectile.

Mortars are portable, and usually used by infantry units. The chief advantage a mortar section has over an artillery battery is the flexibility of small numbers, and mobility. Mortars are able to fire from the protection of a trench. In these aspects the mortar is an excellent infantry support weapon, as it can be transported over any terrain and is not burdened by the logistical support needed for artillery.

Backblast is a cone-shaped area behind a rocket launcher where hot gases are expelled when the rocket is fired. The backblast area is dangerous to others, who may be burned by the gases or exposed to overpressure caused by the explosion. In confined spaces, common in urban warfare, even the operators themselves may be at risk.

All rocket launchers when fired, create a 10' cone directly behind them that deals 4d6 fire damage to anyone standing in it.

Weapons in Use

This chapter talks about the general trends that firearms have followed throughout the years, as well as trends that generally follow for the armed citizen. In most campaigns, players should be free to choose the weapons for their characters; however, if they don't know what to choose, this section can provide some useful advice depending on what kind of campaign or setting is being played. The information in this chapter, and more broadly, this book, focuses on the United States and its firearm laws. For other countries, similar firearms should be used, but they might not be as common for some types of characters. For instance, in the UK, a bartender might have a bat over a shotgun, but an armored car guard will probably be armed along the same lines as their US counterpart.

This chapter also covers what kinds of ammunition and reserve weapons various organizations would have on hand, if need called for them.

Local and State Law Enforcement

Local and State Law Enforcement encompasses the major uniformed officers who deal with local and state crime, investigating everything from petty thief and indecency calls, all the way to statewide drug rings and murder sprees. They generally do not contact federal agencies (or are contacted by federal agencies), unless the case becomes a federal case, that is, crosses state lines. They will often call in federal agencies for guidance and assistance on things that are out of their scope, such as profiling.

Small Police Station or Sheriff's Department

A small police station is a station that has less than 20 sworn in officers or deputies. Because of this, service handgun restrictions are generally lax, usually consisting of caliber requirement for the selected handgun (from 9x19mm up to .45 ACP), and the requirement that the officer or deputy be able to qualify and display proper use and maintenance of their weapon. Because of their size, officers and deputies are heavily stressed to carry a backup weapon. Police stations and sheriffs departments of this size generally do not have their own SWAT team, and usually have to ask a larger, nearby department, for assistance. Service handgun habits for departments of this size span the entire department, from the rookie patrol officer or deputy, all the way up to the chief or sheriff.

The armory may include between 1-5 extra boxes of JHP ammunition for duty work, 6-8 boxes of 12 Gauge 00 Buckshot ammunition, and 3-5 12 Gauge pump action shotguns of assorted manufacturer.

Examples of these police stations and sheriff's departments include small town sheriff's department or campus police at a small college.

Medium Police Station or Sheriff's Department

A medium police station is a station that has between 21-100 sworn in officers or deputies. They generally issue specific firearms, though the requirement that the officer or deputy be able to qualify and display proper use and maintenance of their weapon still applies. Popular firearms for police stations and sheriff's departments for their officers and deputies include the Glock series in 9x19mm, .45 ACP, and .40 S&W, the Smith and Wesson 59 Series and the M&P Series in 9x19mm and .40 S&W, The SIG P229 in .40 S&W, the Springfield Armory GI 1911A1 in .45 APC, and the XD in .40 S&W and .45 ACP, and the Beretta 92FS in 9x19mm and the Px4 in 9x19mm, .40 S&W and .45 ACP. In addition to their sidearm, they often carry an expendable or fixed baton, pepper spray or for more well funded departments, a taser, at least two reloads for their sidearm, a multitool or pocket knife, a small flashlight, a pair of handcuffs, and a radio. They are also issued a ballistic vest, or receive a stipend to pay for one. Detectives and investigators will generally carry the same firearms issued to the officers, though older detectives grandfathered in before the widespread use of automatics will carry their .38 Special and .357 Magnum revolvers, such as the Colt Detective Special and the Smith and Wesson Model 36, as well as a pair of handcuffs. Higher officers, such as the captains, majors and chiefs, pull double duty and are out on the street just as much as they are in the office, carrying what suits them.

The SWAT team is usually comprised of various officers who work their normal duty work until their services are needed. Unlike the standard officers, SWAT team members generally carry personalized handguns, that have been fitted to their specific needs. The SWAT team, when on a mission is equipped with shotguns such as the Mossberg 590A1 and Remington 870 Police, sub-machine guns such as the HK MP5A4 and MP5A5, UMP9, UMP40, and UMP 45, and bolt action rifles such as the Remington 700P, as well as a single entry shield. A SWAT team in a department of this size will also have tear gas and smoke grenades.

The armory will have 10-15 extra boxes of JHP ammunition for regular duty work, 8-10 boxes of FMJ for target practice, 10-20 boxes of 12 Gauge 00 buckshot ammo, and 5-8 boxes of 12 Gauge non-lethal beanbag and rubber ball ammo. The armory will also have between 5-25 spare handguns that have not been issued or are spares, with extra magazines for these handguns, as well as 6-10 12 Gauge pump action shotguns, usually of an unformed nature, the most common being the Mossberg 500 and the Remington 870 Express.

Examples of these police stations and sheriff's departments include a state patrol, large town police force or campus police at a large university.

Large Police Station or Sheriff's Department

A large police station is a station that has over 100 sworn in officers or deputies. These stations or departments are generally stringent on their specific firearms, sticking to strictly issued firearms for its personnel. They follow the same trends a medium-sized police station would in choice of firearms and issued equipment, though the requirement that the officer or deputy be able to qualify and display proper use and maintenance of their weapon still applies. Detectives and investigators will generally carry the same firearms issued to the officers. Higher officers, such as the captains, majors and chiefs, are usually confined to clerical and managerial work, and as such, do not make it a habit to carry a weapon while on duty.

The SWAT team in a large station is comprised of dedicated officers who are solely on the SWAT team and do not do patrol work. Because of their area of coverage, they are mostly active answering calls where their forces are needed, and when not doing so, are undergoing training to keep their skills sharp until their services are needed. SWAT team members generally are relaxed from the strict requirements that other officers are imposed about their sidearms, allowing to choose a sidearm to fit their specific needs.

The SWAT team would have the same equipment as a medium-sized department, just more of it, but would also possess shotguns such as the Mossberg 930 Tactical, Remington 1100, and Benelli M1014, carbine rifles such as the Colt M4, H&K G36K, designated marksman rifles such as the H&K PSG1 and M14 SWS, and even grenade launchers such as the H&K M320, as well as multiple entry shields and riot shields. A SWAT team in a department of this size will also have tear gas, smoke, sting, stun and even concussion grenades. Departments such as these also have weapons dedicated for purely non-lethal engagement, and will have multiple .68 Cal. paintball markers and 18mm LL for subduing a subject without firearms.

The armory for a large police department will have hundreds of boxes of various types of ammunition, though a bulk of their ammunition will be JHP issued for duty. The armory will also not only have a multitude of spare firearms and magazines, but will possess its own staff of armorers dedicated to repairing, maintaining, and cataloging said firearms.

Examples of these police stations and sheriff's departments include police forces of metropolises, such as the New York City Police Department, the Los Angeles Police Department, the Chicago Police Department, the Atlanta Police Department, and the Los Angeles County Sheriff's Department.

Park Rangers

Park rangers hold a special place in law enforcement, in the fact that they perform more than just the standard duties associated with law enforcement. In addition to enforcing park regulations and laws, they are charged with educating the various visitors of the parks which can be as simple as weather forecast and giving directions, to complex as giving full guided tours that talk about the park's ecology, history, and demonstrations. They are also charged with watching for forest fires and answering emergency calls and dispatching help to those in need.

Because of their somewhat remote nature, most park rangers carry weapons that would be considered heavy or excessive in a civilian setting, with revolvers chambered in .44 Magnum or .454 Casull, or autoloaders chambered in .45 ACP or 10mm Auto, to stop large animals such as bears and mountain lions. They also generally have a shotgun or rifle in their vehicle, as well as a complete medical kit, a map of the area, a compass, flashlight, blankets, water and food rations.

Federal Agencies

Federal agencies are agencies that investigate crimes that are either attempted against the entire United States of America or that involve multiple states. They generally do not bother themselves with local petty crime, but will get involved with larger crimes, as well as lend assistance, manpower, and firepower to local agencies who need it.

Federal Bureau of Investigation

The Federal Bureau of Investigation (FBI) is a governmental agency belonging to the United States Department of Justice that serves as both a federal criminal investigative body and an internal intelligence agency (counter intelligence).

The current issued sidearm for special agents is the Glock 22 or Glock 23 if they pass their first qualification. If they fail their first qualification, they will be issued either a Glock 17 or Glock 19 to aid in their next qualification. The Glock 26, Glock 23, and Glock 27 are authorized as backup weapons. Special agents are authorized to purchase and qualify with the Glock 21 for duty carry.

Special agents of the FBI Hostage Rescue Team and FBI SWAT teams are issued the Springfield Armory 1911A1 Loaded Operator in .45 ACP.

The HRT and SWAT team maintains a stock of H&K MP5/10A3 and MP5SD6 SMGs that have been outfitted with laser sights, tactical flashlights, red dot sights, and a vertical foregrip, as well as Colt M16A3, M4 and M4A1, M14, and M40A1 rifles. They also have access to Barrett M82A1 Anti-materiel rifles, M79 grenade launcher, Tasers, and stun grenades when needed.

Bureau of Alcohol, Tobacco, Firearms, and Explosives

The Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) is a federal law enforcement organization within the United States Department of Justice. Its responsibilities include the investigation and prevention of federal offenses involving the unlawful use, manufacture, and possession of firearms and explosives; acts of arson and bombings; and illegal trafficking of alcohol and tobacco products. The ATF also regulates via licensing the sale, possession, and transportation of firearms, ammunition, and explosives in interstate commerce.

The currently issued sidearm for special agents is the Glock 22 or Glock 23.

United States Marshals Service

The United States Marshals Service (USMS) is a United States federal law enforcement agency within the United States Department of Justice. The Marshals Service is part of the executive branch of government, and is the enforcement arm of the United States federal courts. The U.S. Marshals are responsible for the protection of court officers and buildings and the effective operation of the judiciary. The service also assists with court security and prisoner transport, serves arrest warrants, and seeks fugitives.

The current issued sidearm for Marshals is the Glock 22 or Glock 23, chambered in .40 S&W, but a Marshal may choose to carry any 9x19mm, .40 S&W, .45 ACP, or .357 Magnum backup or full sized handgun, providing they pay the full cost and qualify with it.

While on assignment, Marshals will also carry ArmaLite AR-15 and Colt M4A1 rifles, and Mossberg 500 and Remington 870 Police shotguns.

The Special Operations Group (SOG) is issued the Springfield Armory 1911A1 Loaded Operator in .45 ACP.

Federal Air Marshal Service

The Federal Air Marshal Service (FAMS) is a United States federal law enforcement agency under the supervision of the Transportation Security Administration (TSA) of the United States Department of Homeland Security (DHS). The Air Marshal Service is meant to promote confidence in civil aviation by effectively deploying federal air marshals (FAMs) to detect, deter, and defeat hostile acts targeting the United States.

The current issued sidearm for Air Marshals is the SIG P229, chambered in .357 SIG.

Drug Enforcement Agency

The Drug Enforcement Administration (DEA) is a federal law enforcement agency under the United States Department of Justice, tasked with combating drug smuggling and use within the United States. Not only is the DEA the lead agency for domestic enforcement of the Controlled Substances Act, sharing concurrent jurisdiction with the Federal Bureau of Investigation (FBI) and Immigration and Customs Enforcement (ICE), it also has sole responsibility for coordinating and pursuing U.S. drug investigations abroad.

The current issued sidearm for Special Agents is the Glock 22 or Glock 23, chambered in .40 S&W, but they can qualify with the S&W M&P chambered in .40 S&W as well. The Glock 23, and Glock 27 in .40 S&W are authorized as backup weapons. The H&K UMP40 is the standard SMG, and the Remington 870 Police is the standard shotgun. Agents also have begun to use the RRA CAR A4 Tactical, that has been upgraded to fire fully automatic as well. Special Agents can also use their personal firearms, but all must be approved by the DEA firearms office before use.

Immigration and Customs Enforcement

U.S. Immigration and Customs Enforcement (ICE) is a federal law enforcement agency under the United States Department of Homeland Security (DHS), responsible for identifying, investigating, and dismantling vulnerabilities regarding the nation's border, economic, transportation, and infrastructure security. The largest components within ICE are Homeland Security Investigations (HSI) and Enforcement & Removal Operations (ERO).

ICE HSI Special Agents and ERO Officers and Agents are issued the SIG P229 pistol, chambered in .40 S&W, as their primary sidearm. They also may be assigned the Remington Model 870 Police shotgun, the Steyr AUG rifle, or the Colt M4 carbine. Agents and officers assigned to a Special Response Team (SRT) are specifically assigned the Colt M4 Carbine while some operators may also carry the H&K MP5A4 or MP5A5 sub-machine gun, although these are being replaced by the H&K UMP40 chambered in .40 S&W.

United States Secret Service

The United States Secret Service is a United States federal law enforcement agency that is part of the United States Department of Homeland Security. The sworn members are divided among the Special Agents and the Uniformed Division. Until March 1, 2003, the Service was part of the United States Department of the Treasury. The U.S. Secret Service has two distinct areas of responsibility; Treasury roles, covering missions such as prevention and investigation of counterfeiting of U.S. currency and U.S. treasury securities, and investigation of major fraud, and protective roles, ensuring the safety of current and former national leaders and their families, such as the President, past Presidents, Vice Presidents, presidential candidates, and foreign embassies.

Secret Service Special Agents are issued the SIG P229, chambered in .357 SIG, or the FN Five-seveN chambered in 5.7x28mm FN. Agents are also trained on the H&K MP5K, MP5K-PDW, MP5A4 and MP5A5 sub-machine gun, the Remington 870 Police shotgun, and the FN P90 Sub-machine gun.

United States Postal Inspection Service

The United States Postal Inspection Service (USPIS) is the law enforcement arm of the United States Postal Service. Its jurisdiction is defined as "crimes that may adversely affect or fraudulently use the U.S. Mail, the postal system, or postal employees." The mission of the U.S. Postal Inspection Service is to support and protect the U.S. Postal Service, its employees, infrastructure, and customers by enforcing the laws that defend the nation's mail system from illegal or dangerous use.

Postal Inspectors are issued the SIG P229, chambered in .40 S&W as a primary sidearm. Unique to the Postal Inspection Service, Postal Inspectors are issued a Remington 870 Police shotgun along with their service sidearm.

United States Diplomatic Security Service

The United States Diplomatic Security Service (USDSS) is the federal law enforcement and security arm of the U.S. Department of State. Its main duties are to secure the integrity of U.S. travel documents, namely against visa and passport fraud, and to help facilitate U.S. foreign policy by protecting diplomatic assets, personnel, and information.

DSS agents are issued the Glock 19, chambered in 9x19mm as a primary sidearm, and are currently phasing out the SIG P229, which was also chambered in 9x19mm. They are also issued Glock 26s, Remington 870s, Colt M4A1s, and Colt RO635s. DSS agents may also be issued MP5s, M249s, M240Bs, and M203s for high threat locations.

United States Border Patrol

The United States Border Patrol (USBP) is the United States Customs and Border Protection's federal law enforcement arm within the United States Department of Homeland Security (DHS). The USBP is the armed and uniformed federal police that secure the borders of the United States by detecting and preventing illegal aliens, terrorists and terrorist weapons from entering the United States, and prevent illegal trafficking of people and contraband.

Border patrol agents are issued the Glock 19 or a Glock 47, which is a Glock 17 with an extended barrel and an optics mount, both chambered in 9x19mm as a primary sidearm. They are also issued Glock 26s as backup firearms, Remington 870 14", Colt M4A1s, and HK UMP 40s. They are also issued the FN 303 less lethal launcher, for less lethal engagements.

Naval Criminal Investigative Service

The Naval Criminal Investigative Service (NCIS) is the primary law enforcement agency of the U.S. Department of the Navy. Its primary function is to investigate criminal activities involving the U.S. Navy and U.S. Marine Corps, though its broad mandate includes national security, counterintelligence, counter-terrorism, cyber warfare, and the protection of U.S. naval assets worldwide.

NICS Special agents are issued the SIG P229 and the SIG P239 (SALT 3), both chambered in .40 S&W as a primary sidearm. Field officers have Mossberg 500s, Remington 870s and Colt M4A1s available to them as deemed necessary.

United States Army Criminal Investigation Division Command

The Army Criminal Investigation Division (ACID) is the primary law enforcement agency of the U.S. Department of the Army. Its

primary function is to investigate criminal activities involving felony crimes and serious violations of military law & the United States Code within the United States Army

ACID agents are issued the SIG P320 and the SIG P228, both chambered in 9x19mm as a primary sidearm. Agents have Colt M4A1s available to them as deemed necessary, for protection missions.

United States Marine Corps Criminal Investigation Division

The United States Marine Corps Criminal Investigation Division (USMC CID) is a federal law enforcement agency that investigates crimes against people and property within the United States Marine Corps.

USMC CID agents are issued Glock 19s, chambered in 9x19mm as a primary sidearm.

United States Army Criminal Investigation Division Command

The U.S. Air Force Office of Special Investigations (OSI) is a U.S. federal law enforcement agency that provides independent criminal investigative, counterintelligence and protective service operations worldwide and outside of the traditional military chain of command. AFOSI proactively identifies, investigates, and neutralizes serious criminal, terrorist, and espionage threats to personnel and resources of the Air Force and the U.S. Department of Defense, thereby protecting the national security of the United States.

OSI agents are issued the SIG P228, both chambered in 9x19mm as a primary sidearm. Agents have Colt M4A1s and MP5s available to them as deemed necessary.

The Underworld

The underworld encompasses the world of crime that exists as a whole, spanning everything from petty drug dealers to crime lords, mafia bosses, and set leaders, who control and run the lower soldiers and gang members.

Petty Criminals

This group encompasses singular criminals, petty thieves, con-men, and singular drug dealers. These criminals have their fingers directly in the crime, though most of their crime is either opportunistic, or for profit.

Low level criminals don't have a specific group of firearms: they can quite literally be caught with anything from a single shot pistol from World War 2 to a fully automatic assault rifle. As a general rule, these criminals generally use melee weapons for their ease of acquisition, lack of restriction, simplicity in use, and sometimes their added benefit of plausible deniability. When they do carry firearms, they prefer any gun that can be concealed, and is available. Because of their criminal records, they can not go and purchase a firearm from a legal dealer, instead opting for illegal street deals, or stealing a firearm. Poor quality firearms are common.

Street Gangs

This group is a level above the unstructured criminal, and includes street gangs with an identifiable power structure and leader. These groups generally deal purely in profit, often coming from the same neighborhood or of a similar race, creed, or lifestyle. They usually also have a mutualistic interest: money, and work together because of it, and the chaos and criminalistic activity they cause is merely a byproduct. They usually wear identifying colors or pieces of clothing, such as certain colors, or even leather jackets or vest with the club's insignia.

Outlaw motorcycle gangs are atypical of this behavior, as the chaos and criminalistic behavior are the desired ways of life, and the criminal enterprise is a means to live, in order to continue the life of chaos.

Smaller street gangs are generally equipped with concealable handguns and pump action shotguns, as these are the cheapest to acquire, use, and replace, while the larger gangs may possess heavier firepower such as automatic weapons such as assault rifles, and even anti-materiel rifles.

Gang Leaders and Crime Bosses

Gang leaders generally prefer to keep their hands clean of any actual violence or drugs, preferring to delegate those tasks to lower ranking gang members, but will generally carry a smaller concealable handgun of decent to high quality, such as the Kahr handgun series, the Walther PP Series, the SIG P290 and P238, and the Glock 26, 27, and 28. These are usually tucked away inside briefcases, bags, and under suit jackets.

Drug Cartels

A drug cartel is a criminal organization developed with the primary purpose of promoting and controlling drug trafficking operations. They can range from an agreement between two street gangs to work together, all the way up to interstate and even international, multi-billion dollar formal industries.

While they have a similar structure to a common street gang, their size, funding and training rivals legitimate governmental agencies. Most soldiers in a drug cartel are trained in the various arts of asymmetrical warfare, close-quarters combat, weapons handling and maintenance, and some have even received explosives handing and training. Most of this training comes from legitimate state training, which the knowledge is then passed down from a dissenting police officer.

Weapons carried by the cartel include, but are by no means limited to, M16, M4, AK-47 and AKM assault rifles, shotguns of every make and model, AT4 and M72 LAW rocket launchers, M79 grenade launchers, and even Barrett M82B anti-materiel rifles.

Assassins and Hitmen

Assassins are people who commit a targeted murder. Hitmen are assassins for hire.

Assassins and hitmen's method of killing can range from poisoning to blowing up an entire car, but when firearms are involved, they prefer to either fire from a long distance, using a high-powered rifle with a scope and possibly a suppressor, or close range with a suppressed handgun, or machine pistol. They also use a melee weapon, a knife usually, for truly quiet kills.

Gunrunners and Arms Traffickers

Gunrunners and arms traffickers are people who smuggle contraband weapons and ammunition for a profit. They sell their arms, acquired legally or otherwise, to anyone who has the cash and need. Arms traffickers and gunrunners should not be confused

with people who sell firearms for legal commerce, such as a legally operating gun store.

Because of their nature of business, they have the best selection and quantity of weapons: it's their business to have as such. Gunrunners are generally heavily armed, either by choice or simply by having stock, usually with a few handguns and an assault rifle or two, as well as grenades, explosives, magazines, ammunition, and anything else their customers would like to sample. They also have a tendency to wear body armor, in order to avoid getting killed by their own merchandise.

Insurgents and Terrorists

Insurgents and terrorist armament depends completely on their funding, and their supporters. Underfunded insurgents will use crude, homemade firearms, while well-funded and equipped insurgents will use everything from fully automatic rifles to rocket launchers. Because of their nature, any weapon is viable for a terrorist or insurgent.

Civilian Forces

Civilian forces encompass regular people who have a mind to carry a firearm for protection, specifically those who have to do so as a part of a job, but are not law enforcement, or regular citizens who prefer to have their protection and safety in their hands.

Armored Car Drivers

Armored cars are popular target for professional bank thieves, and as such, their drivers are armed. Armored car drivers are generally equipped with a ballistic vest, a uniform, and a handgun, that they must purchase themselves, but do receive a stipend for it. Popular firearms span far and wide, but they most often keep full-sized handguns in a tactical holster, with a pump action or automatic shotgun in the truck.

Bartenders

Bars are often the starting scenes for rowdy behavior, and as such, the bartender is often armed. They often keep a shotgun, such as a Mossberg 500 or Remington 870 Police under the bar for serious altercations, but many bartenders have begun to opt for a full sized handgun, because of their maneuverability and size. They also will have melee weapons, such as a bat, to deal with less rowdy, but still problematic, patrons.

Shopkeepers

Shopkeepers generally follow the same rules as bartenders, but their weapons are more used for people attempting a quick stickup job. The level of armament of the shop is completely dependent on the shopkeeper's views, as well as what they sell. A gun store is guaranteed to have an armed shopkeeper, while a fine china store in a wealthy neighborhood may go without firearms, electing to call the authorities instead.

Mercenaries

A mercenary is a person who takes part in an armed conflict, who is not a national or a party to the conflict, and is "motivated to take part in the hostilities essentially by the desire for private gain and, in fact, is promised, by or on behalf of a party to the conflict, material compensation substantially in excess of that promised or paid to combatants of similar ranks and functions in the armed forces of that party". Most mercenaries in the modern age are employees of private security firms such as Blackwater, Xe Services, Triple Canopy, Armour Group, PBE, and Dyncorp.

Mercenaries are generally armed the same, or more usually, better than their soldier counterparts, equipped with the best body armor, weapons, vehicles, and ammunition, provided by the company they work for. This equipment is generally on loan from the company while they perform their services, though it isn't uncommon for a mercenary to carry their own personal sidearm. The type of handgun a mercenary carries is completely dependent on their personal preference but .45 ACP, .40 S&W, and .357 Magnum are the most popular calibers.

Bodyguards

Bodyguards are equipped just as mercenaries, though because of their dealings in the states, they will bypass fully automatic weapons in lieu of semi-automatic rifles and carbines, as well as concealed handguns.

Hunters

The weapon a hunter carries depends on the personal preference of the hunter, and what they are hunting. For birds, or small animals, a light birdshot is generally preferred in a shotgun, modified with a choked barrel. Varmint hunters will choose something with a smaller caliber, such as .22 Long Rifle or .17 HMR. Hunters of larger game will prefer high powered rifles chambered in calibers such as 7.62x51mm or .30-06 Springfield, or shotguns with slug barrels, loaded with slugs. A hunter may also choose to carry a crossbow, or bow and arrow, for a silent kill.

Security Guards

Security guards are charged with over-watching an area, usually an office building or dock. They are generally not given firearms, rather to observe and report, and call the authorities if anything does happen. They are usually given a flashlight and possibly a can of pepper spray.

Militia Members

Local militia members are armed depending on their funding, and location. Militia groups in the United States will normally be armed with self-loading rifles such as the Ruger Mini 14, and Mini 30, while well-funded militias will have AR-15s and FALs. Because of their semi-organized nature, firearms will rarely be universal across the members, many using what they can afford or even get their hands on.

Armed Citizen

The armed citizen's armament can vary extremely widely. Usually it will focus on smaller handguns suitable for conceal carry, such as firearms from makers such as S&W, Kahr, Glock, H&K or Ruger, to name a few. A small few will also carry backup firearms as well. Less well off citizens will have less expensive firearms, such as Hi-points, Jimenez, Taurus, Kel-tecs, and SCCYs.

Militaries Around the World

This section covers the basic issued equipment for the various armies listed. In addition to the equipment listed, militaries often issue a host of other support equipment, such as MREs, MOLLE gear, and tools to achieve their missions.

United States Marine Corps, United States Army, United States Airforce and the United States Navy

The armed forces of the United States all issue M4A1s and M16A4s with iron sights, red dot sights, or 1.5x telescopic sights depending on the soldier's duties. Specialty units and soldiers are issued M249 light machine guns, M320 and M203 grenade launchers, M110 SASS designated marksman rifles, M40A3 and M24A3 sniper rifles, M82 anti-materiel rifles, AT4 and Javelin rocket launchers, and MP5 sub-machine guns. Soldiers are also issued M9 handguns, which are functionally identical to Beretta 92FS handguns, but they are being phased out for the newer M17 handguns, which are Sig-Sauer P320 full-size handguns in 9x19mm. The USMC also has a store of M1911 and Glock 19 handguns that are used by select groups, but these weapons are few and far in-between, often given to special forces groups. The Criminal Investigations divisions such as CID and NCIS are issued Sig-Sauer P228 handguns in 9x19mm, while military police are issued M9s or M17s. Mossberg 590A1 and Remington 870 shotguns are often used both by military police for response, and by infantry for breaching. The M1014 is also issued for breaching, but this is primarily used by the USMC. Various types of grenades are used by all branches, with fragmentation, smoke and stun grenades being the most common. Survival knives are issued as well.

Canadian Armed Forces

The armed forces of Canada issue M4A1s and M16A4s with iron sights, red dot sights, or 1.5x telescopic sights depending on the soldier's duties. Specialty units and soldiers are issued FN Minimi light machine guns, M320 and M203 grenade launchers, M110 SASS designated marksman rifles, M40A3 and M24A3 Sniper rifles, M82 Anti-materiel rifles, AT4 and Javelin rocket launchers, MP5 sub-machine guns. Soldiers are also issued Browning Hi-Power handguns. Various types of grenades are used by the Canadian Armed Forces, with fragmentation, smoke and stun grenades being the most common. Survival knives are issued as well.

United States Coast Guard

The United States Coast Guard issues M4A1s with various optics and Remington 870s for boarding action, as well as Sig-Sauer P229 handguns chambered in .40 S&W. Flare guns and flotation vests are also standard issue due to their work in and around the water.

People's Liberation Army Ground Forces

The PLA Ground forces issues the Norinco QBZ Type 95 rifle and the Norinco QBU Type-88 rifle, with Norinco QSZ Type 95 LSW is used as a squad automatic weapon. They also issue the Norinco QSZ 92 handgun, but these handguns are primarily for officers.

Israeli Defense Force

The Israeli Defense Force primarily issues the IMI Tavor series of rifles for a multitude of tasks, but still will issue the M16A4 for various secondary roles such as security duty and conscription duty. They also issue the M24A3 to snipers, and have the IMI Negev as their squad automatic weapon. Galils are also common in both secondary roles and primary roles. Jericho 941 handguns are also issued to select personnel. Various types of grenades are used by the IDF, with fragmentation, smoke and stun grenades being the most common. Survival knives are issued as well.

British Army and the Special Air Service

The British Army and the SAS are both issued the L85A2 rifle, as well as the FN Minimi squad automatic weapon, and the L86 LSW. Specialist roles will receive the Accuracy International AWP rifle. Their issued handgun is the Browning Hi-Power, usually given to officers. AT4 anti-tank weapons and M320 grenade launchers are also common. Various types of grenades are used by both the British Army and the SAS, with fragmentation, smoke, and stun grenades being the most common. Survival knives are issued as well.

Chapter IX

Variant Rules

Ultra Lethality

This variant rule changes how Extended Hit Points are accumulated by characters, making the game much more lethal and dangerous at all levels.

Game Masters should be **heavily** cautioned when using this variant rule, as it greatly increase the lethality of combat, since Extended HP is not increased, giving the characters less of a buffer against attacks.

Game Masters should re-evaluate Battle Value for monsters and enemies, putting characters against enemies with 3-10 less Battle Value than their current battle value.

For 1st level, a character is created as normal, following the standard rules. Every level after 1st level, a character no longer gains any Extended HP, can not purchase Extended HP points with Character Option Points, and the character's pool of character option points is reduced by 2, giving the character 2 Character Option Points per level after 1st level. All other effects, features, and rules of leveling a character still apply.

Any other method of increasing Extended Hit Points, such as through feats, or temporary Hit Points, still applies.

Uses for this rule

This rule can be used if you want to add a more simulation type of play, where players will need to be very mindful of armor, cover, concealment, reacting, and danger in general.

Fast Damage

This variant rule Created by Twixman. Thank him for it!

Fast damage simplifies the damage rules of Ops and Tactics by limiting the amount of dice rolled for damages. When calculating the damage for weapons, the amount of dice rolled is instead multiplied by the roll, instead of all of the dice are rolled, with the bonuses applied after the roll.

> Example: .45 ACP has a damage of 3d4+2. Using the Fast Damage rules, you would roll 1d4, multiply it by 3, and then add 2 to the calculated number.

Fast damage can make the game faster, but at the cost of unbalancing some weapons and damages. GMs are encouraged to weigh the options when using this variant rule.

Custom Occupations

Custom occupations replaces the standard occupations of Ops and Tactics, allowing players and GMs to build their own occupation instead of using the prebuilt occupations.

Occupations have three values, Feats, Skills, and Wealth. A character has 6 Occupational Option points that they can spend on any of these three values.

Feats Occupations have 0 feats by default. A character can choose any feat that does not have any prerequisites.

Skills Occupations have 1 skill by default. This can be any skill.

Wealth Occupations have 4d4 WP as their starting Wealth Points. The bi-weekly wealth point is half of this.

Cost	Benefit
2 OOP	+1 Feat
2 OOP	+1 Skill
1 OOP	+4d4 Wealth

Table 192: Occupational Option Points

Gridless Combat

This variant rule Created by Conscript Gary. Thank him for it!

Tactical affairs such as movement are best handled on a grid, but for players who prefer the wargame type of movement, or who do not want to be tied to a grid-like movement, this variant rule gives them options.

The primary advantage of this variant is that it eliminates the grid and the issues that come with it, such as moving diagonally, and complicated aiming and throwing distances. It also makes creating organic scenes using props much easier. All distance is measured in a straight line.

5 feet in game is equivalent to 1 inch, and the recommended miniature sizes is 22mm. It is highly recommended that a tape measure is on hand, and string and circular cutouts with 1 inch notations. All ranges are rounded up to the nearest inch, when needed.

Grenades, explosives, and any weapons with a blast radius work as normal. The blast radius is calculated as a diameter (a 5' blast radius will be a circle 1 inch across, a 10' radius will have a circle 2 inches across, etc). The diameter of the explosive must only touch the miniature in order for it to be affected. For the purpose of this variant rule, wounding radius is removed.

All creatures sized Medium and less should be able to fit into a 1 inch diameter circle, Large creatures will fit into a 2 inch diameter circle, Huge creatures will fit into a 3 inch diameter circle, Gargantuan creatures will fit into a 4 inch diameter circle, and Colossal creatures will fit into a 5 inch or larger circle.

Glancing Hit and Serious Hit

This Variant rule changes the spread of possible hits, turning near misses into barely hits, and absolute hits into devastating blows.

All Defense Scores are increased by 3. Defense scores are calculated as normal, then increased by 3.

The Defense Score is segmented into three sections: Glancing Hit, Standard Hit, and Serious Hit. The attack falls within the range, that attack is the type.

The attacker rolls their attack roll as normal, and then resolves the attack based on what level of hit they fall within.

Other attack modifiers such as critical strikes and their rules are kept in place, and apply as well as this variant rule.

Attack Type	Attacker Attack Roll
Complete Miss	Defense Score - 4 or lower
Glancing Hit	Defense Score - 3 to Defense Score - 1
Standard Hit	Defense Score to Defense Score + 2
Serious Hit	Defense Score + 3 and higher

Table 193: Attack Type

Complete Miss

A complete miss means that the attacker completely missed the target.

Glancing Hit

A glancing hit is a blow that doesn't quite connect with the full force of the attack, and instead merely grazes or glances off of the creature or object.

Glancing hits do not cause bleed damage, and can not cause extremity damage, regardless of the total value.

Glancing hits cause 25% of the total damage rolled. (Multiply the damage by .25)

Standard Hit

A standard hit is a solid hit that connects with full force.

Standard hits apply damage as normal.

Serious Hit

A serious hit is a hit that connected with more than full force, due to the preciseness of the attack.

Serious hits cause 125% of the total damage rolled. (Multiply the damage by 1.25)

Overpenetration and Missed Shots

On a base level, Ops and Tactics ignores the aftereffects of using improper ammunition when in combat, or when one misses their shot. This variant rule adds the notion of missing or shooting through your target.

Missing the intended target

If an attack roll results in a missed attack by a ranged weapon, the projectile does not simply disappear. The projectile continues on for 5 range increments in the direction it was fired until it loses momentum force and lands on the ground *or* collides with another object.

If an object or target is within the line of fire of the projectile, the original attack roll is used to see if it collides with that target, but the target is considered flat-footed, as they are unaware that the attack is even coming for them. If the roll succeeds, then it is considered a hit and damage is rolled as it would be if it were a normal attack.

The hardness of an object also effects if it can be penetrated. If the damage of an attack is more than double the hardness of an object, it does not stop the round at all, and the round passes through. Treat that object as concealment, not cover.

Overpenetrating a target

If the ammunition does half or more of the total possible damage to the target using the base damage, the round has shot though the target and has the possibility to hit someone else. This only happens with the following kinds of ammunition:

- **Cased Rounds**
  - FMJ
  - Hardball
  - Surplus
  - Wadcutter
  - Semi-Wadcutter
  - Solid
  - Match Grade
  - Super Match Grade
  - Semi Jacketed Soft Points
  - Soft Points
  - Armor Piercing
  - Tungsten
  - Silver
  - Tracer
- **Shell Rounds**
  - Slug
  - Magnum Slug
  - Saboted Slug
  - Armor Piercing Slug
- **Caseless Rounds**
  - FMJ
  - Match Grade
  - Armor Piercing
  - Tracer
- **Black Powder**
  - All rounds

Refer to the rules for missing a target to handle what target was hit. If a secondary target is hit, that target takes half the damage the original target received. If the target is wearing armor that provides DR to the attack, the rounds do not over-penetrate.

When using Armor Piercing, Armor Piercing Slug or Saboted Slug ammunition, the ammunition always overpenetrates the first target, unless they are wearing armor that provides both ballistic piercing and ballistic DR.

Laser Arms that have the X-Ray Emitter always overpenetrate.

Caliber	Damage	Half Damage
.41 Rimfire	1	0
.22 Short	1d2	1
.22 Long Rifle	1d4	2
.32 Rimfire	2d3	3
.17 HMR	1d4+2	3
.22 WMR	2d4+2	5
.44 Henry	2d6+1	6

Table 194: Rimfire Ammunition

Caliber	Damage	Half Damage
.25 ACP	1d3	1
.32 ACP	1d6	3
7.65mm Longue	1d4+2	3

Table 195: Light Rimless Ammunition

Caliber	Damage	Half Damage
.380 ACP	2d4	4
8x22mm Nambu	2d4	4
9x18mm PM	2d4+1	4
.30 Super Carry	2d6-1	5
9x19mm	2d6	6
.40 S&W	3d4	6
.38 ACP	2d6+1	6
.38 Super	3d4+3	7
7.63x25mm Mauser	2d8	8
.22 TCM	2d3+3	4
7.63mm Mannlicher	1d6+4	5
.357 SIG	2d6+2	7
7.62x25mm Tokarev	2d8+2	9
9x23mm Steyr	2d6+3	7

Table 196: Intermediate Rimless Ammunition

Caliber	Damage	Half Damage
.45 ACP	3d4+2	7
.45 GAP	3d4+2	7
10mm Auto	2d6+4	8
.44 AMP	3d6	9
.45 Winchester Magnum	3d6+1	9
.50 GI	5d3+2	12
.475 Wildey Magnum	3d6+5	11
.460 Rowland	4d4+2	9
.50 Action Express	3d6+2	10

Table 197: Heavy Rimless Ammunition

Caliber	Damage	Half Damage
.38 Long Colt	1d4	2
.38/200	1d4+3	3
.38 S&W	1d4+3	3
.38 Special	2d4+1	4
.476 Enfield	1d4	2
9mm Japanese Revolver	1d6+2	4
7.62x38mmR	1d8+2	5
.32 S&W Long	1d4+1	2
.32 H&R Magnum	1d8+3	6

Table 198: Light Rimmed Ammunition

Caliber	Damage	Half Damage
.44 American	1d6+3	4
.44 Russian	1d6+3	4
.45 Schofield	2d4+3	5
.327 Federal Magnum	2d6+1	6
.45 Long Colt	2d6+3	7
.41 Long Colt	3d4+1	6
.455 Webley	3d4+1	6
.357 Magnum	3d4+3	7
.32-20 Winchester	1d10	5
.44 Special	1d6+6	6
.38-40 Winchester	1d6+5	5
.44-40 Winchester	1d10+5	7
.44 Magnum	3d6	9
.454 Casull	3d6+5	15
.500 S&W Special	5d6+4	17
.500 Wyoming Express	4d6+2	13
.500 S&W Magnum	7d6	21

Table 199: Heavy Rimmed Ammunition

Caliber	Damage	Half Damage
.17 Remington	2d6	6
4.6x30mm	3d4–1	5
5.7x28mm	3d4–1	5

Table 200: Light Rifle Ammunition

Caliber	Damage	Half Damage
.30 Carbine	3d6+1	9
5.45x39mm	4d4+2	9
5.8x42mm	5d4	10
5.56x45mm	5d4	10
9x39mm	4d4+4	10
6mm Lee Navy	5d4+2	11
6.8mm Remington SPC	5d4+3	11
4.73x33mm	4d4+1	9

Table 201: Intermediate Rifle Ammunition

Caliber	Damage	Half Damage
6.5 Creedmoor	6d4	12
6.5x50mm Arisaka	4d6	12
7.92x33mm Kurz	3d8	12
.243 Winchester	4d6+2	13
.300 AAC Blackout	4d6	12
.30-30 Winchester	4d6+1	12
6.5mm Grendel	4d6+1	12
7.62x39mm	4d6+2	13
.280 British	4d6+3	13
7.5x54mm French	4d6+4	14
7.62x51mm	5d6	15
8mm Lebel	5d6+1	15
7x57mm Mauser	5d6+2	16
7.62x54mmR	5d6+2	16
.303 British	5d6+3	16
.30-40 Krag	5d6+4	17
7.7x58mm Arisaka	5d6+4	17
7.5x55mm Swiss	5d6+4	17
7.92x57mm Mauser	5d6+5	17
.30-06 Springfield	6d6	18
.56-56 Spencer	2d10+5	12
.45-70 Government	3d10	15
.50-70 Government	3d10+5	17
.458 SOCOM	3d12	18

Table 202: Heavy Rifle Ammunition

Caliber	Damage	Half Damage
.300 Winchester Magnum	7d6	21
.338 Lapua Magnum	7d8	28
7.92x94mm	7d8	28
.50 BMG	10d8	40
12.7x108mm	10d8	40
13.9x99mmB	12d8	48
14.5x114mm	10d10	50
20x102mm	12d10	60
20x105mm	12d10	60
20x125mm	12d10	60

Table 203: Super Heavy Rifle Ammunition

Caliber	Damage	Half Damage
.28 Caseless	1d12+3	9
.40 Caseless	2d12+6	19
.20 Hi-Velo Caseless	4d12+4	30

Table 204: Caseless Ammunition

Caliber	Damage	Half Damage
.31 Ball	2d3	3
.36 Ball	2d4	4
.44 Ball	2d6	6
.52 Ball	2d8	8
.58 Minié Ball	2d10	10
.75 Ball	3d8	12
.50 Cal Muzzleloader	4d10+3	25

Table 205: Black Powder

Caliber	Damage	Half Damage
.410 Bore	3d4+1	6

Table 206: Light Shotshell Ammunition

Caliber	Damage	Half Damage
20 Gauge	4d6	12
16 Gauge	4d6+3	13
12 Gauge	5d6	15

Table 207: Intermediate Shotshell Ammunition

Caliber	Damage	Half Damage
10 Gauge	7d6	21

Table 208: Heavy Shotshell Ammunition

Uses for this rule

This rule can be used if you want to add a more simulation type of play, where players will need to watch their crossfire and be mindful of what's behind their target, as well as not act as recklessly with the wrong kinds of ammunition, and gives more incentive for anti-personnel ammunition purchases.

Generic Firearms

Firearm The name and model of the firearm.

Damage(Dam) and Recoil Penalty(RP) The Amount of damage the firearm causes, and the Recoil Penalty of the Firearm.

Magazine Size, Cost, and Type The size of all available magazines for the firearm and what type of device the firearm uses.

Upgrade Points (Upg) The type of upgrades the firearm can accept.
F Frame / **B** Barrel / **O** Optics / **T** Tactical

Range Increment (Rng) The range increment for the firearm. All shotgun range increments affects both their damage and range. All benefits from upgrades have been already calculated in the weapon's range increment.

Rate of Fire (RoF) The rate of fire for the firearm or the action of the firearm.

SA Single Action requires the hammer to be pulled back before firing again. Single Action firearms that take box magazines or have internal magazines are considered semi-automatic firearms. All Single Action firearms gain a +1 attack bonus on all single shot and potshot attacks. Single Action firearms with cylinders cost +1 Combat Point when performing a single shot attack.

DA/SA Double Action/Single Action where the first shot is a heavy double action pull and the second is a crisp single action pull. DA/SA firearms are considered semi-automatic firearms. All single shot and potshot attacks after the first gain a +1 attack bonus. The first shot has no bonus or penalty, but the hammer may be cocked back for 1 Combat Point, giving a +1 attack bonus for the first shot.

DA Double Action is similar to DA/SA but every shot is a heavy double action pull. Double Action firearms are considered semi-automatic firearms. The hammer is exposed and can be cocked back for 1 Combat Point, gaining a +1 attack bonus on single shot and potshot attacks.

DAO Double Action Only is similar to DA but the hammer can not be cocked back. Double Action Only firearms are considered semi-automatic firearms.

PA Preset Action, the action is at half-cock giving a light trigger pull. Preset Action firearms are considered semi-automatic firearms. All single shot attacks have a +1 attack bonus.

Lever Action The firearm has a lever that must be worked after each shot. Attacks cost +3 Combat Points when firing from a prone position, but –2 Combat Points when performing potshot attacks.

Pump Action The firearm has a pump on the forearm that is worked back and forth to cycle a new round.

Slam A subset of Pump Action. Firearms with this have no disconnecter and will discharge if pumped while the trigger is held down.

Bolt Action The firearm has a bolt that must be worked after each shot, expending the empty shell and reloading a new round. All single shot attacks have a +1 attack bonus, but cost +1 Combat Point.

Self Loading (SL) Each pull of the trigger reloads the firearm. It is synonymous with semi-automatic, and Self-Loading firearms are considered semi-automatic firearms.

Burst fire (2RB/3RB) Stands for burst fire, in 2RB and 3RB variants. 2RB Stands for 2 round burst, which allows the firearm to perform 2 round burst fire attacks, and 3RB stands for 3 round burst, which allows the firearm to perform 3 round burst fire attacks.

Auto Stands for fully automatic where the firearm will continue to fire as long as the trigger is pressed down. The firearm can perform autofire, suppressive fire, sweepfire, sprayfire, or five round burst fire attacks.

Single The firearm can only hold a single round and must be reloaded after every shot.

Double The firearm has two triggers that can be depressed at the same time, to perform a double-fire attack, or one at a time to perform two single attacks.

Size (Sz) The size of the firearm. The smaller size denotes how large the weapon is when it is folded up, while the larger size denotes how large the weapon is fully extended, or assembled.

Weight (Wt) How much the firearm weighs with all of the accessories it comes standard with.

Wealth Point Cost The cost of the firearm to purchase, not including the license.

Standard Equipment What you receive when you purchase the firearm, fully assembled. If the firearm has a permanent piece of equipment, that equipment cannot be removed or modified. All firearms and magazines are unloaded and empty when purchased.

Simple Firearms and Ammo

When your players don't know or don't care about the differences between a Beretta 92FS and a Glock 19 and want to simply jump into the action without worrying about the finer points of firearms, these firearms may be substituted or used for them instead. Firearms are split into major categories, and all categories use the same ammunition and magazines of their type unless otherwise noted. Upgrades work exactly the same as regular firearms.

Type	Ammo Cost
Light Pistol	1 WP per 50
Standard Pistol	2 WP per 50
Heavy Pistol	2 WP per 50
Light Revolver	1 WP per 50
Heavy Revolver	4 WP per 50
Shotgun	2 WP per 50
Light Rifle	2 WP per 50
Heavy Rifle	5 WP per 50
Grenade Launcher	6 WP each

Handguns Handguns are split into eight different types: Light Pistol, Standard Pistol, Service Pistol, Heavy Pistol, Backup Revolver, Service Revolver, and Heavy Revolver. Light handguns are pocket handguns, with a small magazine or cylinder size and a small punch, but good for hiding away. Standard and service handguns are service weapons used by various law enforcement agencies, as well as your common thugs, at times. Heavy Handguns are pistols and revolvers chambered in large, wide caliber handguns, carried by few and used by even less.

The Light Pistols comes with one magazine.

The Standard, Service, and Heavy Pistols come with two magazines.

Machine Pistols Machine Pistols are split into two different types: Light Machine pistols and Heavy Machine Pistols. Light Machine Pistols use Light Pistol Ammo, and sport a 25 round magazine. Heavy Machine Pistols use Standard Pistol Ammo, and can take Standard Pistol Magazines as well as their own 32 Round magazines. Machine Pistols lack the stock of SMG, but still have the full auto power.

The Light Machine Pistol comes with one magazine.

The Heavy Machine Pistol comes with two magazines.

SMGs Sub-Machine Guns are split into two different types: Light SMG and Heavy SMG. Light SMGs use Light Pistol ammo, and while small, don't pack as much as a punch. Heavy SMGs use Standard Pistol ammo, and are bulkier, but pack more of a punch. Non-automatic/burst versions of these rifles can be purchased for –3 WP cost, and a licensed restriction.

The Light SMG comes standard with one magazine and a folding stock.

The Heavy SMG comes standard with two magazines and a fixed stock.

Shotguns Shotguns are split into two different types: Hunting Shotgun and Tactical Shotgun. While both shotguns use the same type of ammunition, the application is vastly different. Hunting shotguns are long barreled, small capacity weapons that are primarily used for hunting game. Tactical Shotguns are used by police officers and other LE agencies, often as a police cruiser gun.

All Shotguns come standard with a fixed stock and have Smoothbore Barrels. Any firearm that uses magazines comes with 1 magazine.

Rifles Rifles are split into three different types: Assault Rifles, Battle Rifles, and Hunting Rifles. Assault rifles share common ammo with Light Sniper Rifles and Light Machine Guns, while Battle Rifles and Hunting rifles share Common ammo with Heavy Sniper Rifles and Heavy Machine Guns. Assault rifles are light and maneuverable and hold more ammo, but fire weaker rounds. Battle rifles are unwieldy, but sturdy and powerful, however holding less ammunition. Hunting rifles boast increased accuracy at the loss of automatic fire.

The Assault Rifle, Battle Rifle and Hunting Rifle all come standard with one magazine and a fixed stock.

Machine Guns Machine Guns are split into two different types: Light and Medium. Light Machine Guns share common ammo with Light Sniper Rifles and Light Assault Rifles, while Medium Machine Guns share common ammo with Heavy Sniper Rifles, Battle Rifles, and Hunting Rifles. Light Machine Guns are light and maneuverable, but fire weaker rounds and don't punch through cover as well. Heavy Machine Guns are unwieldy, but sturdy and powerful, useful for heavy cover.

Both Machine Guns come standard with one empty ammo box, a bipod, and a fixed stock.

Sniper Rifles Sniper Rifles are split into two different types: Light Sniper Rifle and Heavy Sniper Rifle. Light Sniper Rifles share common ammo with Light Machine Guns and Light Assault Rifles, while Heavy Sniper Rifles share Common ammo with Heavy Machine Guns, Battle Rifles and Hunting Rifles. Both rifles are accurate and do the job well, but one is lighter and easier to carry while one is heavier and packs a bigger punch.

Both Sniper Rifles come standard with a 10× telescopic sight and a fixed stock.

Explosive Launchers Explosive Launchers are split into two different types: Grenade Launcher and Rocket Launcher. Neither use the same ammunition, but both can be devastating against a group of enemies. Grenade launcher lobs a loaded grenade at a single square. The rocket launcher is a single use rocket, meant to be discarded after each use. Rocket Launchers deal fire and concussion damage.

Race Construction

This variant rule adds the ability for players and GMs to build their own races.

Race Building

This is a template for a GM and players to build their own races for games. All races are sentient beings, capable of some form of independent thought and have some way to manipulate tools and weapons.

When designing a race, be sure to think of how they look as well. What do the males and females look like (if there are males and females)?, What are their cultural norms? What languages do they speak? What places are they from and what is the geography of their homelands? Do they generally prefer one form of combat or area of study over another? These are just a few questions you can ask yourself, and your players in order to flesh out the created races.

Dominant and Recessive Traits

A race's Recessive Traits are its Combat Point Score and Core Hit Point Formula, and its Dominant Traits can be selected from its abilities. A race can have up to 9 Racial Ability Points worth of Racial Abilities, and can have as many handicaps as they wish.

Base Racial Values

Medium Sized Races

This race is of Medium size, being the standard size.

- The race has a base Combat Point score of 12.
- The race has a base CHP formula of `CON-1`.
- The race receives two feats.
- The race receives 9 Racial Ability Points, which they can spend on abilities. Each ability can only be taken once, unless otherwise specified.

Small Sized Races

This race is of a smaller stature, being harder to hit but having less health and having more difficulty using larger weapons.

- The race gains a +1 size bonus to Defense, for their size.
- The race gains a –1 size penalty to melee attacks, for their size.
- The race has a base Combat Point Score of 14.
- The race has a base CHP Formula of `CON-2`.
- The race has the Small Frame Handicap but does not receive the bonus points from the handicap.
- The race is not allowed to take the Large Frame Handicap.

Weapon	Dam/RP	Mag and Cost	Upg	Rng	RoF	Sz	Wt	Cost	Restr
Light Pistols									
Light Pistol, DAO	1d6/-1	Box:7:1	F B	15'	DAO	T	0.8	8	L
Light Pistol, Striker	1d6/-1	Box:6:1	F B	15'	PA	T	0.8	8	L
Standard Pistol									
Standard Pistol, DA/SA	2d6/-2	Box:17:1	F B 1T	30'	DA/SA	S	1.4	15	L
Standard Pistol, Striker	2d6/-2	Box:15:1	F B 1T	30'	PA	S	1.1	13	L
Service Pistols									
Service Pistol, DA/SA	2d6+2/-3	Box:14:2	F B 1T	30'	DA/SA	S	1.1	16	L
Service Pistol, Striker	2d6+2/-3	Box:11:2	F B 1T	30'	PA	S	1.1	14	L
Heavy Pistols									
Heavy Pistol, DA/SA	3d6/-4	Box:9:2	F B	35'	DA/SA	M	2.1	18	L
Heavy Pistol, SA	3d6/-4	Box:8:2	F B	35'	SA	M	2.1	20	L
Backup Revolvers									
Backup Revolver, DAO	1d6+1/-1	Cyl:5	F B	20'	DAO	S	1.0	8	L
Backup Revolver, DA	1d6+1/-1	Cyl:5	F B	20'	DA	S	1.0	10	L
Service Revolver									
Service Revolver, DA	2d6+4/-4	Cyl:6	F B	35'	DA	M	2.5	13	L
Service Revolver, DAO	2d6+4/-4	Cyl:6	F B	35'	DAO	M	2.5	14	L
Heavy Revolvers									
Heavy Revolver, SA	3d6+3/-5	Cyl:6	F B	35'	SA	M	2.5	19	L
Heavy Revolver, DA	3d6+3/-5	Cyl:6	F B	35'	SA	M	2.5	22	L
Machine Pistols									
Light Machine Pistol	1d6/-1	Box:25:1	F B 1T	25'	SL/Auto	S	1.8	11	M&P
Heavy Machine Pistol	2d6/-2	Box:32:2	F B 1T	35'	SL/Auto	M	2.0	18	M&P
SMGs									
Light SMG	1d6/-1	Box:20:1	F B 1T	30'	SL/2RB/Auto	S/L	4.5	14	M&P
Heavy SMG	2d6/-2	Box:30:2	F B 1T	40'	SL/3RB/Auto	L	5.5	30	M&P
Shotguns									
Hunting Shotgun, Pump Action	5d6/-6	Int:3	F B	45'	Pump	L	4.4	8	L
Hunting Shotgun, Double Barrel	5d6/-6	Int:2	F 2B	45'	Single/Double	L	4.0	12	L
Tactical Shotgun, Pump Action	5d6/-6	Int:6	F B 1T	25'	Pump	L	5.5	20	L
Tactical Shotgun, Self-Loading	5d6/-6	Int:4	F B 1T	25'	SL	L	5.6	26	L
Rifles									
Assault Rifle	4d6+3/-6	Box:30:1	F B O 4T	65'	SL/Auto	L	7.0	30	M&P
Battle Rifle	6d6/-8	Box:20:2	F B O	80'	SL/Auto	L	11.6	35	M&P
Hunting Rifle, Lever Action	6d6/-8	Box:7:2	F B O	70'	Lever	L	10.6	20	L
Hunting Rifle, Bolt Action	6d6/-8	Box:5:3	F B O	95'	Bolt	L	6.6	18	L
Hunting Rifle, Self-Loading	6d6/-8	Box:10:5	F B O	65'	SL	L	10.6	29	L
Machine Guns									
Light Machine Gun	4d6+3/-6	Linked Box:75	F B O 2T	55'	Auto	L	15.0	54	M&P
Medium Machine Gun	6d6/-8	Linked Box:100	F B O 1T	70'	Auto	L	25.0	65	M&P
Sniper Rifles									
Light Sniper Rifle	4d6+3/-6	Int:5	F B O	160'	Bolt	L	10.0	60	L
Heavy Sniper Rifle	6d6/-8	Int:5	F B O	180'	Bolt	L	12.5	70	L
Explosive Weapons									
Grenade Launcher	6d6 20' Blast	Int:1	—	45'	Single	L	14.8	30	M&P
Rocket Launcher	30d6 30' Blast	Int:1	—	200'	Single	L	5.0	38	M&P

Table 209: Firearms

- The race receives two feats.
- The race receives 9 Racial Ability Points, which they can spend on abilities. Each ability can only be taken once, unless otherwise specified.

Racial Abilities

+1 CHP This ability grants a +1 to the CHP formula. It can be taken a maximum of 5 times.

+1 Combat Point This ability grants a +1 to the Combat Point score. It can be taken a maximum of 5 times.

+10 Mental Limit This ability grants a +10 bonus to the Mental Limit Formula. It can be taken a maximum of 3 times.

1 Specific Feat This ability grants the race a single preselected feat. This feat must have no prerequisites in order to be taken.

Any 1 Feat This ability grants the race the ability to select any one feat at character generation.

No Encumbrance Penalty to CP This ability allows the race to ignore all Combat Point reductions due to being encumbered.

Extra Effort Doesn't Flatfoot/AoO This ability allows the race to not become flatfooted or provoke AoO when using the Extra Effort action.

–1 Size Category with Melee Weapons This ability allows the race to treat all melee weapons as one size smaller when using them. This applies only to using, not concealing.

–1 Size Category with Ranged Weapons This ability allows the race to treat all ranged weapons as one size smaller when using them. This applies only to using, not concealing.

1.5× Multiplier on one Saving Throw This ability gives the race a new formula for a single Saving Throw, which is: **(Base Selected Saving Throw Score×1.5)+Ability Modifier+Misc. Modifiers**. This ability may be taken a maximum of 3 times, each time applying to a different Saving Throw.

Racial Recoil Bonus This ability grants a +1 to the Recoil Modifier Formula. It can be taken a maximum of 6 times.

Blindsight Ability This ability grants the race the ability to use non-visual senses, such as sensitivity to vibrations, scent, acute hearing, or echolocation, the race maneuvers and fights as well as a sighted creature. Invisibility and darkness are irrelevant. This ability has a 35' range.

Constrict Ability This ability gives the race the ability to crush their opponents after making a successful grapple check, dealing 1d8+POW damage, and will continue to deal 1d8+POW damage for every round the grapple lasts.

Darkvision Ability This ability grants the race the ability to see in total darkness, out to 50 feet. Darkvision is black-and-white only, but is otherwise like normal light.

Fast Healing Ability This ability grants the race the ability to regenerate 1 CHP per round. Fast Healing stops working when the race is reduced to –10 HP or fewer. Fast Healing also doesn't restore HP lost to starvation, thirst, or suffocation, and it doesn't allow a creature to regrow or reattach severed body parts.

Low-Light Vision Ability This ability grants the race the ability to see twice as far as normal in poor lighting conditions. The creature can still distinguish colors, even in dim lighting.

Poison Ability This ability grants the race the ability to produce poison through glands. By default, the race injects the poison through a non-lethal, non damaging bite which must be accomplished after a successful grapple attack or spits it which is a ranged attack that cost 3 Combat Points with a total range of 10'. A race with natural weapons can, on a successful attack, poison the target.

Poison	Damage
Neurotoxin	1d4 CON / 1d8 CON
Dendrotoxin	1d4 DEX / 1d8 DEX
Cardiotoxin	1d4 STR / 1d8 STR
Hemotoxin	1d6 CHP / 2d6 CHP

Table 210: Poison Ability

Poison attacks deal initial damage to the opponent on a failed Fortitude Saving Throw. Unless otherwise noted, another Saving Throw is required 1 minute later (regardless of the first save's result) to avoid secondary damage. Select one kind of poison. The race's poison provides this initial and secondary damage. A race is immune to its own poison, and can not poison itself, even purposely.

The Fortitude Saving Throw against poison is [TN10 + poisoning character's CON Mod]. A successful Saving Throw negates the damage.

Regeneration Ability This ability grants the race the ability to regrow and reattach severed body parts, allows extremity damage to be healed as normal, and stop bleeding at the rate of 1 bleed damage per 5 rounds. Severed parts that aren't reattached wither and die normally. Regeneration doesn't restore HP lost to starvation, thirst, or suffocation. Regeneration stops working when the race is reduced to -10 CHP or fewer.

Scent Ability This ability allows the race to detect approaching enemies, sniff out hidden foes, and track by sense of smell. Races with the Scent ability can identify familiar odors. The creature can detect any object or creature that has an odor within 150 feet by sense of smell. If the object or creature is upwind, the range increases to 300 feet; if downwind, it drops to 75 feet. Strong odors can be detected at twice the ranges noted above. Overpowering odors can be detected at triple normal range.

When an odor is detected, the exact location is not revealed—only its presence somewhere within range. If the detector moves within 30 feet of the source, the creature can pinpoint that source.

This ability can also be used to follow tracks by smell, making a WIS check to find or follow a track. The TN for a fresh trail is 10 (no

matter what kind of surface holds the scent). This TN increases or decreases depending on the strength of the odor, the number of objects or creatures being tracked, and the age of the trail. For each hour that the trail is cold, the TN increases by 2. Every additional object or creature reduces the TN by 1. Strong odors decrease the TN by half rounded down, and overpowering odors decrease the TN to a third rounded down.

Water Breathing Ability This ability grants the race the ability to breathe underwater, as if they were on land. The race can not drown in water, and does not have to make CON checks in order to hold their breath in water.

Swim Ability This ability grants the race the ability to move through water as normal without making an Athletics check. It gains a +8 bonus on any swim check to perform some special action or avoid a hazard. The race always can choose to take 10, even if distracted or endangered when swimming.

Natural Melee Weapons This ability grants the race a natural melee weapon that has a damage of 1d6+POW, that does either piercing, slashing, or bludgeoning damage, and has a critical range of 16-18. This weapon is considered a small simple melee weapon, that the race is proficient in using. This ability can be taken a maximum of 3 times, each time choosing a different kind of damage. A race with the poison ability can also use this attack to poison a target.

Natural Ranged Weapons This ability grants the race a natural ranged weapon that has a damage of 1d6, that does either piercing, slashing, or bludgeoning damage, has a range of 30' and has a critical range of 16-18. This weapon costs 5 Combat Points to use. The race is proficient in using this weapon. This ability can be taken a maximum of 3 times, each time choosing a different kind of damage. A race with the poison ability can also use this attack to poison a target.

Cybernetic Mental Limit Reduction Exclusion This ability grants the race the ability to ignore any Mental Limit reductions due to cybernetics.

Combat Point Reduction With Any Type of Magic This ability grants the race a permanent –1 Combat Point cost when the race releases a spell, recites an incantation, or uses psionics.

Non-Verbal Complete Communication This ability grants the race the ability to communicate completely without any overt verbal component. The form such communications take can be as subtle as facial twitches or as overt as dances, or anywhere in between. This communication conveys the same amount of information (literal words, tone, context, etc) as spoken words, making it a complete means of communication. This functions as a second, 'spoken'-only language that the race receives at creation.

Environment Immunity This ability grants the race immunity to a single environment, as listed below, as well as the benefits listed with that environment.

- **Cold** Do not have to make a Saving Throw against cold environments.
- **Hot** Do not have to make a Saving Throw against hot environments.
- **Wet** Do not have to make a Saving Throw against diseases.
- **Dry** Do not require additional water beyond the normal amount in hot or very hot climates.

Preferred Racial Damage This ability grants a race a bonus to all attacks equal to their character level of a selected damage, with any weapon, spell, psionics, or incantation that they are proficient in. The available damages for this ability are cold, fire, electricity, concussion, or acid. This ability may be taken multiple times, each time selecting a different damage.

Natural Energy Resistance This ability grants the race natural energy resistance of 1 against cold, fire, electricity, concussive, or acid damage. This ability can be taken a maximum of 5 times.

Receptive Healing Ability This ability grants the race the ability to heal at a quickened rate. The race heals at twice the normal amount from all medicinal and magical healing, and heals twice as fast through normal healing.

Point Cost	Benefit
1	+1 CHP (+5 max)
1	+1 CP (+5 max)
1	+10 Mental Limit (+30 max)
2	1 specific feat
3	any 1 feat
1	No encumbrance penalty to CP
1	Extra Effort does not flatfoot/AoO
1	–1 size category with melee weapons
2	–1 size category with ranged weapons
2	1.5× on one Saving Throw
1	+1 Natural Recoil Bonus (Maximum increase of +6)
3	Blindsight
2	Constrict
2	Darkvision
2	Fast Healing
1	Low-Light Vision
4	Poison
2	Regeneration
2	Scent
2	Water Breathing
2	Swim
2	Natural Melee Weapons
3	Natural Ranged Weapons
2	ML Cybernetic Exclusion
2	1 CP reduction with all Magic types
2	Non-verbal complete communication
2	Environment Immunity
3	Racial Damage Preference
3	Natural Energy Resistance
1	Receptive Healing Ability

Table 211: Racial Abilities

Racial Handicaps

Handicaps are negative restrictions that can offset a race's positive benefits, allowing them to gain more abilities. Handicaps grant racial

ability points equal to their value. A race can only gain +5 points worth of racial ability points from handicaps.

Small Frame This handicap disallows the race to use Gargantuan sized weapons, inflicts a –6 attack penalty when using all Huge weapons, inflicts a –2 attack penalty to all Large weapons, and inflicts a –1 attack penalty to all Medium weapons.

Large Frame This handicap disallows the race to use Fine, Diminutive, or Tiny sized weapons and inflicts a –2 attack penalty to all Small weapons.

Environment Bound This handicap grants a –4 Combat Point penalty to the race when not in specified environment. The available environments for this ability are cold, hot, specific gas rich (such as oxygen, nitrogen, hydrogen, helium, etc.), a specific atmospheric pressure, light, or dark.

Mental Limit Reduction This handicap grants a –5 Mental Limit reduction to the race. This handicap may be taken a maximum of 5 times.

Key Gear This handicap reduces two ability scores of a race by 3 when the race lacks a key piece of equipment. The piece of equipment is free at creation, and must cost 3 WP or less to replace if lost or broken. The racial creator may choose what effects happen if the key gear is not possessed.

Substance Vulnerability This handicap makes the race weak to a specific substance, causing them 1d4 damage per minute of contact, if they come in physical contact with the substance. The amount of points gained from this handicap depends on the rarity of the substance.

- **Very Common** (+5) Water, sunlight, dirt/earth, any plant or animal matter, any metal.
- **Common** (+4) Precious metals, or wood.
- **Uncommon** (+3) Specific metals or materials.
- **Rare** (+2) Specific precious metals.
- **Very Rare** (+1) Specific radioactive materials, a singular rare specimen of tree.

Environment Vulnerability This handicap makes the race weak to a specific environment. Whenever the race is in that environment, they take the listed penalties as long as they are in that environment. A race can not be vulnerable to the same environment they are immune to.

- **Cold** The Fortitude Saving Throw to resist cold environments is doubled.
- **Hot** The Fortitude Saving Throw to resist hot environments is doubled.
- **Wet** The Fortitude Saving Throw to resist diseases is doubled.
- **Dry** Requires double the normal water intake in dry environments.

Damage Vulnerability This handicap makes the race weak to a specific kind of damage. Whenever the race receives the selected damage from any weapon, spell, incantation or power, they take 1.5× the damage, rounded up. The available damages for this handicap are cold, fire, electricity, concussion, or acid. This handicap may be taken multiple times, each time selecting a different damage.

Specific Diet This handicap limits what the race can eat for substance. The bonus given to racial ability points is determined by how restrictive the diet is. Consuming food out of diet will sustain the race, but it makes them sick, and the character is considered sickened until they eat food from their selected diet. Below are listed diets and their point values.

- **Herbivore** or **Carnivore** (+1) Any kind of plants, or any kinds of flesh/animals.
- **Light Monophagous Herbivore** or **Carnivore** (+2) Specific subset of plants, such as any kinds of leaves or fruits, or specific subset of animals, such as any kind of fish or birds.
- **Heavy Monophagous Herbivore** or **Carnivore** (+3) Specific plant, such as the eucalyptus plant or a specific animal, such as the rainbow trout.
- **Scavenger** (+4) Carnivore, but the meat must be dead for more than 24 hours.

Verbal Non-Communication This handicap disallows a race to communicate through verbal means. All communication must be written, or communication must occur through a different mean.

Slow Healing This handicap slows the rate at which a race heals. A race takes twice as much time to heal wounds. The race can not take this handicap and have the fast healing ability.

Alternate Biochemistry This handicap changes how a race's biochemistry is, for the purposes of medicines. This race gets no benefit from using standard medicines and pharmaceuticals, and instead must have specific pharmaceuticals made for them. All medicines, drugs, and pharmaceuticals cost twice as much and when crafting pharmaceuticals for the race, the TN is increased by +6

Light Blindness This handicap makes the creature blind in any bright light, or direct sunlight, causing them to become blind unless they are wearing some kind of dimming glasses or goggles.

Racial Recoil Penalty This ability grants a –1 to the Recoil Modifier Formula. It can be taken a maximum of 6 times.

Point Gain	Benefit
+1	Small Frame
+1	Large Frame
+1	Environment Bound
+1	Mental Limit Reduction
+3	Key Gear
+1-5	Substance Vulnerability
+2	Environment Vulnerability
+1	Damage Vulnerability
+1-4	Specific Diet
+2	Verbal Non-Communication
+2	Slow Healing
+4	Alternate Biochemistry
+2	Light Blindness
+1	-1 Natural Recoil Penalty (maximum decrease of -6)

Table 212: Racial Handicaps

Fuel Consumption Vehicle Rules

This variant rule Created by Conscript Gary. Thank him for it!

There are times where using and maintaining fuel consumption are core parts of your game. Below are rules detailing out various tank sizes, economies, and purchasing and otherwise acquiring fuel.

Fuel of a higher quality than the vehicle demands can be used without penalty. Fuel of one category lower may be used, but the fuel efficiency will be halved and the engine may need repairs after doing so.

Name	Efficiency	Tank Size	Lowest Fuel Grade
Standard Car Categories			
Toy Car	Terrible	Tiny	Poor
Microcar	Great	Medium	Mediocre
Compact Car	Great	Large	Mediocre
Mid-Sized Car	Good	Huge	Mediocre
Entry Level Luxury Car	Good	Huge	Good
Full-Sized Car	Acceptable	Gargantuan	Mediocre
Full Size Luxury Car	Acceptable	Gargantuan	Great
Standard Van Categories			
Multi-Purpose Van	Great	Huge	Mediocre
Cargo Van	Bad	2 Huge	Good
Passenger Van	Bad	2 Huge	Good
Standard Truck Categories			
Mini Pickup Truck	Acceptable	Huge	Mediocre
Mid-sized Pickup Truck	Acceptable	Gargantuan	Mediocre
Full-Sized Pickup Truck	Bad	Huge	Good
Heavy Duty Pickup Truck	Bad	Gargantuan	Great
Standard SUV Categories			
Mini SUV	Good	Huge	Mediocre
Compact SUV	Good	Huge	Mediocre
Mid-Sized SUV	Acceptable	2 Large	Mediocre
Full-Sized SUV	Bad	Huge	Good
Standard Motorcycle Categories			
Standard Bike	Great	Small	Mediocre
Cruiser Bike	Good	Small	Good
Sport Bike	Acceptable	Small	Great
Touring Bike	Great	3 Tiny	Mediocre
Dual Sport	Acceptable	3 Tiny	Great
Dirt Bike	Good	Tiny	Good
ATV	Bad	Small	Good
Scooter	Great	Tiny	Mediocre
Standard Rotary Aircraft			
Utility Helicopter	Bad	2 Gargantuan	Great
Gunship Helicopter	Bad	2 Gargantuan	Exquisite
Transport Helicopter	Good	2 Gargantuan	Great
Standard Fixed Wing Aircraft			
Standard Prop Aircraft	Acceptable	2 Gargantuan	Great
Military Prop Aircraft	Acceptable	2 Gargantuan	Exquisite
Standard Jet Aircraft	Terrible	10 Gargantuan	Great
Military Jet Aircraft	Terrible	10 Gargantuan	Exquisite
Other Vehicles			
Moving Truck	Terrible	4 Large	Good
Bus	Terrible	2 Gargantuan	Good
Armored Truck	Terrible	2 Huge	Good
Tow Truck	Acceptable	Gargantuan	Good
Golf Cart	Great	3 Tiny	Poor
Semi-Trailer Truck	Special[1]	6 Gargantuan	Good
RV	Terrible	4 Gargantuan	Good
Military & Police Vehicles			
APC	Bad	Gargantuan	Great
IFV	Bad	Gargantuan	Great
MBT	Special[1]	3 Gargantuan	Exquisite
MUV, 2-Door Pickup	Bad	Gargantuan	Mediocre
MUV, 4-Door Pickup	Terrible	2 Huge	Mediocre
MUV, SUV w/o Gun	Bad	2 Large	Mediocre
MUV, SUV w/ Gun	Bad	2 Large	Mediocre

Table 213: Vehicle Fuel Efficiency, Requirements and Tank Sizes

Name	Efficiency	Tank Size	Lowest Fuel Grade
Sports Car Categories			
Grand Tourer Car	Bad	Gargantuan	Great
Supercar	Terrible	2 Large	Great
Muscle Car	Acceptable	Gargantuan	Great
Other Transportation			
Horse	Special[2]	Special[2]	Special[2]
Bicycle	Special[3]	Special[3]	Special[3]

Name	Efficiency	Tank Size	Lowest Fuel Grade
Standard Watercraft Categories			
Personal Watercraft	Acceptable	Small	Mediocre
Small Boat	Acceptable	Medium	Mediocre
Large Boat	Bad	Large	Mediocre
Other Vehicles			
UTV	Bad	Medium	Mediocre
MRAP	Bad	Gargantuan	Mediocre

Table 214: Vehicle Fuel Efficiency, Requirements and Tank Sizes

1 Semi-Trailer Trucks and MBTs have half the fuel efficiency of Terrible.

2 Horses can be ridden safely for thirty miles in a single day, and require 20 pounds of hay and 5 gallons/80 units of water every day.

2 Bicycles distance is measured by the constitution of the rider. A user can ride a bicycle a number of miles equal to their Constitution score / 2. After this distance, the user will have to perform a Fortitude Saving Throw [TN12] per additional mile they ride, each mile adding an additional +2 to the TN.

Table 215: Vehicle Fuel Efficiency, Requirements and Tank Sizes, Cont

Tank	Holds
Tiny	32 Units
Small	64 Units
Medium	128 Units
Large	192 Units
Huge	256 Units
Gargantuan	320 Units

Table 216: Tank sizes

Fuel	Wt/Unit	Cost
Poor	16.0/128	1
Mediocre	16.0/128	2
Good	16.0/128	3
Great	8.0/64	10
Exquisite	4.0/32	16
Perfect	2.0/16	30

Table 217: Fuel Cost

Efficiency	Miles(km)/Gal	Miles(km)/Unit	Feet(km)/Unit
Terrible	10(16.09)	0.6250(1.01)	3,300(1.01)
Bad	15(24.14)	0.9375(1.50)	4,950(1.50)
Acceptable	20(32.18)	1.2500(2.01)	6,600(2.01)
Good	25(40.23)	1.5625(2.51)	8,250(2.51)
Great	30(48.28)	1.8750(3.02)	9,900(3.02)

Table 218: Fuel Efficiency Ratings

Vehicle Upgrades

A vehicle can be upgraded with various upgrades to make them faster, more resilient to attacks, or mount weapons. Vehicles can be upgraded in a number of slots.

- **Body** The frame, the plating, and any other superficial equipment such as the lighting, windshields, paint job, and interior.
- **Wheels** The tires, rims, and the brakes of a vehicle.
- **Powertrain** The engine and any auxiliary equipment hooked up to it, such as a turbocharger.
- **Drivetrain** The transmission and the suspension.
- **Fuel System** The fuel system that fuels and powers the vehicle

Unless otherwise noted, a vehicle can have as many upgrades of each type as the owner can afford.

Efficiency Increase(Fuel System)

This upgrade makes modifications to the fuel system, that increases the efficiency of the vehicle to the next level. Each purchase of this upgrade increases by one level. This upgrade's cost is 10% of the total cost of the vehicle, per upgrade.

Fuel Requirement Decrease(Fuel System)

This upgrade makes modifications to the fuel system, that decreases the quality of fuel required to fuel the vehicle. Each purchase of this upgrade decrease by one level. This upgrade's cost is 20% of the total cost of the vehicle, per upgrade.

Plasma Engine(Fuel System)

This upgrade changes the standard fuel system to a plasma engine that can permanently power a vehicle. It requires no fuel and has the highest possible efficiency rating. This upgrade should only be available when using the Advanced Arms Supplement Book. This upgrade's cost is 125% of the total cost of the vehicle.

Upgrade	Time	Capital Cost
Efficiency Increase	6 hours	10%
Fuel Requirement Decrease	6 hours	20%
Plasma Engine	2 days	125%

Table 219: Equipment, Vehicle Upgrades

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